

# Akdeniz Spor Bilimleri Dergisi

# Mediterranean Journal of Sport Science

ISSN 2667-5463

### Türkiye'de Sporda Doping Alanında Yapılan Lisansüstü Tezlerin İncelenmesi: Sistematik Derleme

Mine ÖMERCİOĞLU®

DOI: https://doi.org/10.38021/asbid.1061590

REVIEW

Mehmet Akif Ersoy Üniversitesi, Beden Eğitimi ve Spor Bölümü Burdur/Türkiye Öz

Bu araştırmanın amacı, ülkemizde doping konusunu ele alan bilimsel çalışmaların tarih içerisindeki değişimi ve gelişimini sistematik olarak incelemektir. Bu araştırma, nitel desende hazırlanmış sistematik bir derlemedir ve verilerin toplanmasında doküman analizi tekniği kullanılmıştır. YÖK Elektronik Tez Arşivinde, "doping" ve "spor" anahtar kelimeleriyle, tüm yıllara göre gelişmiş tarama yapılarak ulaşılan 64 tez çalışmasının dışlama kriterleri doğrultusunda 44'ü bu araştırma kapsamında incelenmiştir. Tezler; yıl, tür, enstitü, anabilim dalı, konu ve yöntemsel olarak sınıflandırılmıştır. Ulaşılan 36 yüksek lisans ve 8 doktora tezinin çoğunun Sağlık ve Sosyal Bilimler Enstitüsü tarafından, en çok Spor konusunda ve Beden Eğitimi ve Spor Anabilim Dalı'nda yürütüldüğü belirlenmiştir. Yöntemsel açıdan incelendiğinde tezlerin çoğunun nicel ankete dayalı, bilgi ve tutumu ölçen betimsel tarama çalışmaları olduğu tespit edilmiştir. Dopingin günümüze yaklaştıkça farklı bilim alanlarının araştırma alanına girdiği ve bu konuda yapılan araştırmaların niceliksel açıdan artış gösterdiği anlaşılmaktadır. Buna rağmen doktora tezlerinin sayısına bakıldığında oldukça az çalısmaya rastlanmıstır. Sonuç olarak, Eğitim ve Sosyal Bilimler alanındaki araştırmacıların gelecekte yapmayı planladıkları lisansüstü tez çalışmalarında daha çok doping konusuna yer vermesi gerektiği ve tüm alanlarda doping konusunda daha fazla nitelikli yüksek lisans ve doktora tezine ihtiyaç duyulduğu anlaşılmaktadır.

Anahtar Kelimeler: Doping, Lisansüstü tez, Spor

### **Sorumlu Yazar:** Mine ÖMERCİOĞLU myalcinkaya@mehmetakif.edu.tr

## An Investigation of Graduate Theses in the Field of Doping in Sports in Turkey: A Systematic Review

Gönderi Tarihi: 22.01.2022

Yayın Bilgisi

Kabul Tarihi: 21.03.2022

Online Yayın Tarihi: 28.03.2022

#### Abstract

This study aims to systematically examine the change and development of scientific studies on doping in Turkey throughout history. The present study is a systematic review prepared in a qualitative design, and the document analysis technique was employed to collect data. Of the 64 theses reached by advanced search according to all years with the keywords "doping" and "sports" in the CoHE Electronic Thesis Archive, 44 were examined within the scope of this study in line with the exclusion criteria. The theses were classified according to year, type, institute, department, subject, and method. It was revealed that most of the 36 master's and 8 doctoral theses reached were conducted by the Health and Social Sciences Institute and most were carried out on the subject of sports and in the Physical Education and Sports Department. When examined from a methodological perspective, it was determined that most of the theses were descriptive survey studies based on quantitative questionnaires and measuring knowledge and attitude. When approaching the present day, it is understood that doping has entered the field of study of different scientific fields and research on this subject has increased in quantity. However, upon examining the number of doctoral theses, very few studies were encountered. As a result, it is understood that researchers in the field of Education and Social Sciences should include the subject of doping more in their graduate thesis studies they plan to do in the future and that more qualified master's and doctoral theses on doping are needed in all fields.

Keywords: Doping, Graduate thesis, Sports

#### Introduction

The legal basis for undergraduate and graduate education in Turkey is Law No. 2547 on Higher Education. According to the law, graduate education "includes master's education and doctorate and specialization in medicine, dentistry, pharmacy, and veterinary medicine, and proficiency in art education" ("Yükseköğretim Kurulu", 2014).

Higher education institutions have functions such as conducting research and publishing, ensuring the progress of science and technology, offering solutions to social problems, and raising qualified manpower. Graduate education has an important role while fulfilling these functions. Graduate education can be defined as education that allows individuals who have completed undergraduate education to specialize in a scientific field they are interested in by continuing their education at master's and doctorate levels (Karakütük, 2002). The authority to carry out graduate education, do scientific research and practice in more than one similar and related discipline in universities and faculties has been given to institutes, which are higher education institutions ("Yükseköğretim Kurulu", 1991). Concerning the number of institutes in Turkey, there are 626 active institutes in state and foundation universities ("Yükseköğretim Kurulu", n.d.).

In the 6<sup>th</sup> article of the Regulation on Graduate Education and Training of the Council of Higher Education, it is stated: "The master's program with thesis enables students to gain the ability to access, compile, interpret, and evaluate information using scientific research methods." The 15<sup>th</sup> article includes the following statements: "The doctorate program provides students with the necessary skills to conduct independent research, interpret and analyze by examining scientific problems, data from a broad and deep perspective, and reach new syntheses." ("Yükseköğretim Kurulu", 2016). Furthermore, graduate theses are made available in the electronic environment to contribute to science and support scientific research and activities ("Yükseköğretim Kurulu", 2018). As of March 2021, there are 651,637 graduate thesis studies in Turkey, including 462,936 master's degree, 113,760 doctorate, 70,355 specialization in medicine, 1,934 proficiency in art, 1810 dentistry specialization, and 842 subspecialty in medicine theses, registered in the CoHE National Thesis Center ("Yükseköğretim Kurulu Ulusal Tez Merkezi", 2021).

The main types of scientific research in higher education can be classified as seminar, graduation thesis, master's thesis, and doctoral thesis, in order of the researcher's expertise and the depth of the research (Yıldız ve Yıldırım, 2010). The scientific thesis studies carried out by graduate students during their education play an active role in the development and advancement of the field of science. Moreover, the number and value of scientific fields and resources in a country indicate the degree of scientific activity of that country (Alhas, 2006). In the information age we live in, accessing and consuming information has gained speed, while specialization and being versatile have gained importance (Tapu, 2018).

Concerning the definition of doping, it was first made in 1963 as follows: "The use of substances or possible methods that will artificially increase the performance of an athlete or players during the competition or while preparing for it, in a way that does not comply with the sports ethics, and that will harm the physical and psychological health of the athlete." (Atasü ve Yücesir, 2001). According to the definition specified in the World Anti-Doping Law, prepared by the World Anti-Doping Agency in 2021, "Doping is the occurrence of one or more of the anti-doping rule violations set forth in Article 2.1 through Article 2.11 of the Anti-Doping Rules" (World Anti-Doping Agency [WADA], 2021).

Athletes resort to performance-enhancing methods in the hope of gaining competitive advantage. These methods enable athletes to train harder and longer, and as a result, athletes become faster and stronger (Perritano, 2016). Doping and performance-enhancing drugs, on the other hand, clearly contribute illegally to improvements in athletic performance. As our knowledge of the human body and the processes that limit its performance increases, so does our ability to illegally modify these processes to improve performance. While gene therapy is used to treat diseases associated with muscle wasting and weakness, it can now also be used to improve athletic performance (Murphy, 2013).

The subject of doping has always been a serious area for scientists to research. Anti-doping, which has assumed an institutional structure in the world, has turned into a meticulously functioning legal process in which developing preventive methods are applied, along with the developments in technology and science. Considering the international literature, it is observed that the number of doping studies (WADA, n.d.), which are among the main activities of the World Anti-Doping Agency, has increased in recent years (Web of Science). It is thought that with the determination of the status of scientific studies conducted on this subject in our country, data will be created for the national anti-doping commission, and it will shed light on the studies planned to be carried out in the future for researchers.

In light of this information, the study's objective is to systematically examine the change and development of studies on doping in history and obtain data on the quantity of scientific studies on doping in Turkey. Furthermore, the other objective of this study is to reveal the existence of studies addressing the subject of doping in sports from a general perspective methodologically.

Answers to the following questions were sought in the study:

- Of which type, in which institute and department are the graduate theses conducted in the field of doping in sports in Turkey prepared most frequently?
- Among which years are the graduate theses performed in the field of doping in Turkey most commonly prepared?
- On which subject, using which research method and data collection tool are the graduate theses carried out in the field of doping in sports in Turkey prepared most frequently?

#### Method

#### Research Model

The model of this study is a systematic review created with a qualitative design. A systematic review is a systematic investigation of all empirical studies meeting the predetermined criteria together in order to answer a specific research question (Higgins and Green, 2019). It aims to identify, evaluate, and summarize the findings of all relevant individual studies, thus, making the available pieces of evidence more accessible to decision-makers. Moreover, it has a strict scientific design based on clear, predetermined, and repeatable methods. In addition to revealing what we know about a particular intervention, it can also demonstrate where information is missing. In this respect, it is a very valuable research design in guiding future research (Centre for Reviews and Dissemination, 2009). The research was methodologically guided by the PRISMA 2020 statement: an updated guideline for reporting systematic reviews (Page, et al., 2021). Additionally, studies published in similar models in Turkey were examined for the design of this review (Çetinkaya, G., 2011; Şahin, G., et al., 2020).

#### Study Group

The population of the study consists of master's and doctoral theses with the main theme of doping in sports, in the Electronic Thesis Archive of the National Thesis Center of the Higher Education Council Presidency, prepared until August 12, 2021 (between 1955 and 2021) in Turkey.

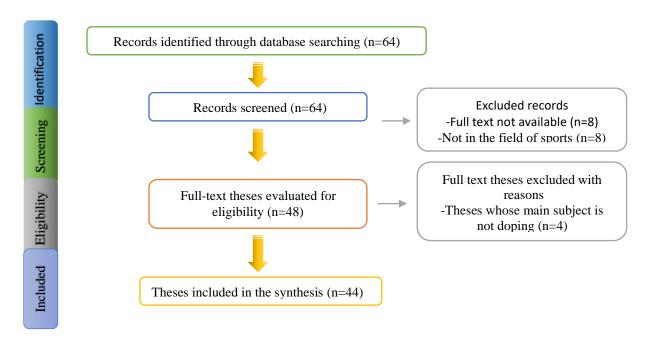


Figure 1.

Research flow chart. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews (Page, et al., 2021).

A sampling method was not used in the study. Of the 64 theses reached in the search, 8 were excluded since they were off-topic studies in which the word doping was included and conducted out of the field of sports (chemistry, physics, etc.), and 8 theses were excluded since their full text could not be reached. The four theses, whose main theme was not doping, but which contained information about doping in sports in some part, were also excluded, and a total of 44 thesis studies were examined within the scope of this research ("Yükseköğretim Kurulu Ulusal Tez Merkezi", 2021). The source information of the 44 thesis studies included is in the bibliography in alphabetical order. Concerning the inclusion criteria, theses, which included the subject of doping artificially increasing sports performance, which were open to access, and which employed any of the quantitative, qualitative, or mixed research methods, were examined within the scope of this study.

The inclusion criteria were as follows:

- Addressing the subject of doping in sports as the main theme
- Full-text availability
- The use of scientific research methods

#### Data Collection

The data were obtained by doing an advanced search according to all years and applying the determined exclusion criteria using the keywords "doping" and "sports" in Turkish in the Electronic Thesis Archive of the Council of Higher Education on 12.08.2021.

#### Research Publication Ethics

To reach the sample of this study, necessary permission was obtained from the "Higher Education Council Publication and Documentation Department" that the theses in the relevant database could be used within the framework of scientific ethics and citation rules. Furthermore, concerning the feasibility of the study, an application was made to "Burdur Mehmet Akif Ersoy University Non-Invasive Clinical Research Ethics Committee," and official permission was obtained.

#### **Data Collection Tools**

In this systematic review, the document analysis technique was used as the data collection method. Document analysis includes the analysis of written materials containing information about the case or cases that are aimed to be investigated (Creswell, 2003). A database search was performed in the National Thesis Center Electronic Thesis Archive of the Higher Education Council Publication and Documentation Department.

#### Data Analysis

Graduate theses were categorized according to their types, years, institute, department, and subjects, classified in terms of methods and main themes, and similar departments were combined. One thesis study with the type of specialization in medicine was included in the category of doctoral thesis. The results obtained from the study are presented as frequency distribution in the table and text.

Moreover, the Critical Appraisal Skills Programme (Systematic Review Checklist, n.d.) was used by the researcher to make sense of this systematic review and assess its quality. The program, which contains a 10-question checklist, includes an evaluation form consisting of "yes," "no," and "I can't say" answers and an explanation section.

#### **Results**

This section includes the analysis of graduate theses conducted on the subject of doping between 1995-2021.

Table 1
Characteristics of graduate theses prepared on the subject of doping in sports

Year	Туре	Institute	Department	Subject	Research Model	Data Collection Method
1995	Master's Degree	Health Sciences	Physical Education and Sports	Sports	Qualitative/Review	Document Analysis
2001	Master's Degree	Health Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire
2001	Master's Degree	Health Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire
2003	Ph.D.	Health Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire, Scale
2006	Master's Degree	Health Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire
2007	Master's Degree	Social Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire, Scale
2007	Master's Degree	Social Sciences	Physical Education and Sports	Sports, Health Education Drugs and Alcohol	Quantitative/Descriptive Survey	Questionnaire, Scale
2008	Master's Degree	Health Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire
2008	Master's Degree	Health Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire
2009	Ph.D.	Health Sciences	Anatomy	Sports Anatomy	Quantitative/Experimental	Experimental and Control Group/Measurement
2009	Master's Degree	Educationa 1 Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire, Scale
2009	Ph.D.	Health Sciences	Nutrition and Dietetics	Nutrition and Dietetics	Quantitative/Experimental	Experimental and Control Group/Measurement
2010	Master's Degree	Health Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire, Scale

2010	Master's Degree	Health Sciences	Sports Management	Sports	Quantitative/Descriptive Survey	Questionnaire, Scale
2010	Ph.D.	Social Sciences	Public Law	Sports, Law	Qualitative/Review	Document Analysis
2010	Master's Degree	Health Sciences	Nutrition Sciences	Nutrition and Dietetics	Quantitative/Descriptive Survey	Questionnaire
2010	Ph.D.	Health Sciences	Histology and Embryology	Histology and Embryology	Quantitative/Experimental	Experimental and Control Group/Measurement
2012	Ph.D.	Health Sciences	Psychosocial Areas in Sports	Sports	Qualitative/Review	Document Analysis
2012	Master's Degree	Health Sciences	Physical Education and Sports	Health Education Sports	Quantitative/Descriptive Survey	Questionnaire
2013	Master's Degree	Health Sciences	Sports Management	Sports Philosophy	Qualitative/Review	Document Analysis
2014	Master's Degree	Health Sciences	Pharmacology and Toxicology	Pharmacology and Toxicology	Quantitative/Descriptive Survey	Questionnaire
2014	Master's Degree	Health Sciences	Pharmacology and Toxicology	Sports	Quantitative/Descriptive Survey	Questionnaire
2015	Master's Degree	Health Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire
2015	Master's Degree	Health Sciences	Coaching Education	Sports	Quantitative/Experimental	Experimental and Control Group/Measurement
2016	Master's Degree	Social Sciences	Sports Management	Sports	Quantitative/Descriptive Survey	Questionnaire, Scale
2016	Master's Degree	Health Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire, Scale
2016	Ph.D.	Sciences	Nanotechnology and Nano-medicine	Science and Technology Biochemistry Chemistry	Quantitative/Experimental	Experiment, Measurement
2017	Master's Degree	Educationa 1 Sciences	Physical Education and Sports	Sports	Quantitative/Scale Adaptation Study	Questionnaire, Scale
2018	Master's Degree	Health Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire, Scale
2018	Master's Degree	Health Sciences	Sports Management	Sports	Qualitative/Case Study	Questionnaire, Semi- structured Interview
2018	Master's Degree	Health Sciences	Sports Sciences	Sports	Qualitative/Phenomenological Study	Semi-structured Interview
2018	Master's Degree	Social Sciences	Private law	Law, Sports	Qualitative/Review	Document Analysis
2018	Master's	Social Sciences	Economics	Economics	Qualitative/ Review	Document Analysis
2018	Degree Master's Degree	Health Sciences	Coaching Education	Anatomy Sports	Quantitative/Experimental	Experimental and Control Group/Measurements
2018	Master's Degree	Social Sciences	Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire
2019	Master's	Social Sciences	Sports	Sports	Quantitative/Descriptive Survey	Questionnaire
2019	Degree Master's	Health Sciences	Management Physical Education and Sports	Sports	Quantitative/Descriptive Survey	Questionnaire
2019	Degree Master's	Health	Physical Education	Sports	Quantitative/Descriptive Survey	Questionnaire
2019	Degree Master's Degree	Sciences Health Sciences	and Sports Sports Sciences	Sports	Quantitative/Descriptive Survey	Questionnaire
2019	Master's Degree	Social Sciences	Public Law	Law	Qualitative/Review	Document Analysis
2019	Master's	Educationa	Physical Education	Education and	Quantitative/Descriptive Survey	Questionnaire

	Degree	1 Sciences	and Sports	Training		
2020	Ph.D.	Health	Medical	Pharmaceutics	Quantitative/Descriptive Survey	Questionnaire
	(Spec. in	Sciences	Pharmacology	and		
	Medicine)			Pharmacology		
2020	Master's	Health	Sports Sciences	Sports	Qualitative/Review	Document Analysis
	Degree	Sciences				
2021	Master's	Health	Physical Education	Sports	Qualitative/Case Study	Document Analysis
	Degree	Sciences	and Sports			

Upon examining the findings of the graduate theses investigated within the scope of this systematic review, it was understood that the first thesis study on the subject of doping in sports was a master's thesis on sports conducted in 1995. During this 27-year period, a total of 44 theses on doping, prepared in 27 different universities, were reached. Of the examined theses, 81.8% (36) are master's theses, and 18% (8) are doctoral theses. Concerning the distribution of thesis types by years, it is observed that the highest number of theses was prepared in 2018 and 2019.

Table 2

Distribution of theses on the basis of institute by years

Years	Health Sciences	Social Sciences	Educational Sciences	Sciences	N
1995-2000	1	0	0	0	1
2001-2005	3	0	0	0	3
2006-2010	9	3	1	0	13
2011-2015	7	0	0	0	7
2016-2021	11	6	2	1	20
Total	31	9	3	1	44

As can be understood from **Table 2**, the health sciences institute published 1 thesis between 1995-2000; the health sciences institute published 3 theses between 2001-2005; the health sciences institute published 9 theses, the social sciences institute published 3 and the educational sciences institute published 1 thesis between 2006-2010; the health sciences institute published 7 theses between 2011-2015; the health sciences institute published 11, the social sciences institute published 6, the educational sciences institute published 2, and the institute of science published 1 thesis between 2016-2021. Upon examining the distribution of theses according to institutes in 5-year periods, it is observed that there was a rapid increase in the number of theses on the subject between 2006-2010, and the highest number of thesis studies were conducted between 2016-2021, and they were carried out in the health sciences institute.

It is revealed that 70.5% of the theses were conducted in the health sciences institute, 20.5% in the social sciences institute, 6.8% in the educational sciences institute, and 2.3% in the institute of science. When examined on the basis of institutes, non-normal distribution was found.

Table 3

Distribution of theses on the basis of departments by years

Years	Department	Years	Department
1995-2005	Physical Education and Sports	2016-2021	Coaching Education
	•		Physical Education and
2006-2010	Anatomy		Sports
	Physical Education and Sports		Pharmacology and
	Nutrition Sciences		Toxicology
	<b>Nutrition and Dietetics</b>		Economics
	Histology and Embryology		Public Law
	Public Law		Nanotechnology and
	Sports Management		Nanomedicine
			Private Law
2011-2015	Coaching Education		Sports Sciences
	Physical Education and Sports		Sports Management
	Pharmacology and Toxicology		1
	Psychosocial Areas in Sports		
	Sports Management		

Upon examining the distribution of theses on the basis of the department by years, it is understood that they were conducted only in the Department of Physical Education and Sports between 1995-2005. It is revealed that theses were prepared in the Anatomy, Physical Education and Sports, Nutrition Sciences, Nutrition and Dietetics, Histology and Embryology, Public Law, and Sports Management departments between 2006-2010, in the Coaching Education, Physical Education and Sports, Pharmacology and Toxicology, Psychosocial Areas in Sports, and Sports Management departments between 2011-2015, and in the Coaching Education, Physical Education and Sports, Pharmacology and Toxicology, Economics, Public Law, Nanotechnology and Nanomedicine, Private Law, Sports Sciences, and Sports Management departments between 2016-2021. Upon examining theses according to the departments in 5-year periods, it is found that theses were prepared only in the physical education and sports department between 1995-2005, and the subject of doping was studied in 9 different departments in the period of 2016-2021. When approaching the present day, it is understood that theses diversified in different departments (Table 3).

Concerning the distribution of theses by institutes and departments, there were 1 thesis study in Anatomy, 2 thesis studies in Coaching Education, 15 thesis studies in Physical Education and Sports, 2 thesis studies in Nutrition and Dietetics, 3 thesis studies in Pharmacology and Toxicology, 1 thesis study in Histology and Embryology, 3 thesis studies in Sports Sciences, 3 thesis studies in Sports Management, and 1 thesis study in Psychosocial Areas in Sports among the departments affiliated to the Health Sciences Institute; 3 thesis studies in Physical Education and Sports, 1 thesis study in Economics, 2 thesis studies in Public Law, 1 thesis study in Private Law, and 2 thesis studies in Sports Management among the departments affiliated to the Social Sciences Institute; 3 thesis studies in the Physical Education and Sports department affiliated to the Educational Sciences Institute, and 1 thesis study in the Nanotechnology and Nanomedicine department affiliated to the

Institute of Science. It is known that the highest number of thesis studies was prepared in the health sciences institute. Moreover, it is understood that the most diverse theses on the basis of the department were created in health sciences institutes. It is observed that the subject of doping is covered in less diverse departments in the field of social sciences, and the subject of doping is covered in physical education and sports departments in educational sciences and in nanotechnology and nanomedicine departments in science.

Concerning the distribution of theses by subjects, there were 2 theses in Anatomy, 5 theses in nutrition and Dietetics, 1 thesis in Science and Technology, 1 thesis in Biochemistry, 2 theses in Pharmaceutics and Pharmacology, 1 thesis in Education and Training, 1 thesis in Economics, 1 thesis in Philosophy, 1 thesis in Histology and Embryology, 3 theses in Law, 1 thesis in Chemistry, 2 theses in Health Education, 35 theses in Sports, and 1 thesis in Drug Habit and Alcoholism. As can be seen from the table, although doping is mostly investigated in sports, it is also understood that it is a multidisciplinary research area.

Table 4
Distribution of theses by methods and data collection tools

Method	Master's Degree	Doctorate	Total
Quantitative/Descriptive Survey	24	2	26
Quantitative/Experimental	2	4	6
Quantitative/Scale Adaptation Study	1	-	1
Qualitative/Review	6	2	8
Qualitative/Case Study	2	-	2
Qualitative/Phenomenology	1	-	1
Total			44
<b>Data Collection Tool</b>	Master's Degree	Doctorate	Total
Questionnaire	16	1	17
Questionnaire, Scale	9	1	10
Questionnaire, Semi-structured Interview	2	-	2
Experimental and Control	2	3	5
Group/Measurement			
Experiment, Measurement	-	1	1
Document Analysis	7	2	9
Total			44

Considering the methods and data collection tools of the theses examined within the scope of this review, it is understood that theses were designed in Descriptive Survey, Experimental, Scale Adaptation, Review, Case Study, and Phenomenology models and data were collected using Questionnaire, Scale, Semi-structured Interview, Measurement, and Document Analysis techniques. It is revealed that theses-24 master's degree and 2 doctoral theses-were designed using the quantitative descriptive survey model at most, and questionnaire and scale techniques were mostly used as data collection tools (Table 4.).

#### **Conclusion**

In the present study, graduate theses prepared on doping in Turkey were analyzed, and an inventory of the 27-year period between 1995-2021 was created.

During the period until August 2021, 44 theses on doping in Turkey were reached. It was revealed that the majority of the theses were master's (81.8%), and fewer were doctoral (18.2%) theses. Although it is known that the history of doping research in the world dates back to quite old times, it was first discussed as a thesis topic in 1995 in our country. When examined on the basis of institutes, it was determined that the most theses were prepared in the Institute of Health Sciences (31 theses), and there was an increase in the number of theses carried out in the Institute of Health Sciences and Social Sciences in the last period. It was found that the number of theses in the field of Health-Science was higher than the number of theses in the field of Social-Educational Sciences. The reason for this is thought to be the fact that the departments providing graduate education in Turkey are more rooted and diverse in the field of health and science. The majority of the thesis studies were prepared in the "Physical Education and Sports Department," and it was observed to be intensively studied within the subject of "Sports." Concerning the doctoral theses, it was observed that only two thesis studies prepared in the "Physical Education and Sports Department" and the "Psychosocial Areas in Sports Department" were prepared within the scope of Sports Sciences. When approaching the present day, it is understood that with the increase in the number of graduate theses prepared on doping, they have also diversified in terms of department and subject, and doping has entered the research area of different scientific fields. However, there is not a sufficient number of doctoral theses on doping in the field of Sports Sciences. Upon examining the methods of the studied graduate theses, it was revealed that the number of descriptive survey studies measuring knowledge and attitude based on quantitative questionnaires on doping with a nonnormal distribution was quite high. It is observed that other scientific studies within the field of sports science are more designed in an integrated structure. It is understood that doping is also affected by this integrated structure.

Considering the results of this study, it is understood that the number of doctoral theses on the subject of doping in our country is quite low. Furthermore, upon examining the thesis distribution on the basis of institutes, quite a non-normal distribution was found. It was determined that the number of theses conducted in the field of Health Sciences and Social Sciences increased in recent years. The reason for the rapid increase in the number of theses in the field of Social Sciences is thought to be the need for studies in psychosocial areas on doping.

It is suggested that the issue of doping, which is thought to be an important problem in Turkish sports, should be included more in master's and doctoral theses in different sciences such as nutrition, education, psychology, sociology, history, law and medicine, in addition to sports

sciences in our country. It is understood that theses planned to be prepared on doping should mostly be included in the fields of social and educational sciences, and there is a need for more quality master's and doctoral theses on doping in all fields, especially in Sports Sciences. Furthermore, it is predicted that the quality of doping studies will be enriched with the methodological diversification of graduate theses planned to be conducted in this field. It is thought that quality doping studies published at the national and international levels will contribute to the provision of a clean sports environment in Turkey and in the world.

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