

THE ANALYSIS OF THE PAPERS PRESENTED AT INTERNATIONAL SPORT SCIENCES CONGRESSES IN TURKEY ORGANIZED BY THE SOCIETY OF SPORT SCIENCES IN TERMS OF CONTENT ANALYSIS²

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ABSTRACT

This research aims to analyze the papers presented at International Sport Sciences Congresses in Turkey organized by the Society of Sport Sciences, fields of study, research types, number of authors and statistical methods used. Since the papers were examined in terms of content, content analysis was made and scanning model was used for our research.

Population consists of the Books of International Sport Sciences Congresses published between the years of 1990-2014. Data in the research were collected by scanning all of the congress' books which are accessible, appropriate for analysis and published in the years of 2006, 2008, 2010, 2012 and 2014. Total 1624 papers were analyzed and evaluated one by one in terms of field of study, type of research, number of authors and statistical methods used and then were coded into the form developed, and transferred to the appropriate computer program for statistical operation.

As a statistical operation, frequency-percentage, crosstab and chi-square test were applied. It was also commented according to the distribution of these data.

It was found out that the highest number of papers subject to the research was presented in 2006 and 2014, the fewest number of papers was presented in 2008, the most of these papers were the studies of 3 and more authors, there were few studies of single authors, there were generally quantitative studies but few qualitative studies, studies on the fields of psycho-social and movement practice had the highest number, there were few studies in the field of physical training and sports education as well as sports-health, percentage-frequency distribution and t-test were mostly used and z-test and Friedman test were used less.

It can be concluded that in the papers presented at the International Sport Sciences Congresses in Turkey organized by the Society of Sport Sciences there are more studies in the fields of psycho-social in sport and movement practice sciences among the basic fields of sport sciences however there are few studies on other fields, these are generally quantitative studies, most of these papers are the studies of many authors (3 and more), among the statistical methods used multivariate tests and tests for evaluation of the relations are used less.

Key Words: Sport Sciences, International Congress, Statistical Method

TÜRKİYE'DE SPOR BİLİMLERİ DERNEĞİ TARAFINDAN DÜZENLENEN ULUSLARARASI SPOR BİLİMLERİ KONGRELERİNDE SUNULAN BİLDİRİLERİN İÇERİK ANALİZİ AÇISINDAN İNCELENMESİ

ÖZ

Araştırma Türkiye'de Spor Bilimleri Derneği tarafından organize edilen Uluslararası Spor Bilimleri Kongrelerinde sunulan bildirilerin çalışılan konu alanı, araştırma türü, yazar sayısı ve kullanılan istatistik yöntem açısından değerlendirmek amacıyla yapılmıştır. Araştırma tarama modelinde bir araştırma olup, değerlendirmede içerik analizi yapılmıştır.

Araştırmanın evreni, 1990-2014 yılları arasında yayınlanan Uluslararası Spor Bilimleri Kongre Kitaplarından, örnekleme ise ulaşılabilir ve değerlendirmeye uygun olan 2006, 2008, 2010, 2012 ve 2014 yıllarında yayınlanan kongre kitaplarında bulunan bildirilerden oluşmaktadır. Araştırmada toplam 1624 bildiri, çalışma konusu, araştırmanın türü, yazar sayısı, kullanılan istatistik yöntem bakımından tek tek incelenerek değerlendirilmiş ve geliştirilen forma kodlanarak istatistik işlem için uygun bilgisayar programına aktarılmıştır.

İstatistik işlem olarak frekans-yüzde dağılımı, çapraz tablo ve ki-kare testi uygulanmıştır. Elde edilen her bir verinin dağılımlarına göre de yorumlar yapılmıştır.

Elde edilen veriler sonucunda; araştırma kapsamında değerlendirilen bildirilerde en fazla bildirinin 2006 ve 2014 yıllarında sunulduğu, en az bildirinin 2008 yılında sunulduğu, bu bildirilerin çoğunluğunun 3 ve üzeri yazarlı çalışma olduğu, tek yazarlı çalışmanın az sayıda yapıldığı, genel olarak nicel çalışma yapıldığı, nitel çalışmaya az yer verildiği, en fazla psiko-sosyal alan ve hareket antrenman alanlarında çalışma yapıldığı ve en az çalışmanın beden eğitimi ve spor öğretimi ile spor-sağlık alanında yapıldığı, bu çalışmalarda kullanılan istatistik yöntemlerden yüzde-frekans dağılımı ve t testinin daha çok kullanıldığı z testi ile friedman testinin az kullanıldığı tespit edilmiştir.

Sonuç olarak; Türkiye'de Spor Bilimleri Derneği tarafından yapılan Uluslararası Spor Bilimleri kongrelerinde sunulan bildirilerde spor bilimleri temel alanlarından sporda psiko-sosyal alan ve hareket antrenman bilimlerinde daha fazla çalışma yapıldığını, diğer alanlarda ise yeterli düzeyde araştırmanın yapılmadığını, çalışılan konularında daha çok nicel çalışma olduğunu, çalışmaların çok yazarlı (üç ve üzeri) çalışma olduğu, kullanılan istatistik yöntemlerde çok değişkenli testlerin ve ilişkileri incelemeye yönelik testlerin az kullanıldığını söyleyebiliriz.

Anahtar Kelime: Spor Bilimi, Uluslararası Kongre, İstatistik Yöntem

INTRODUCTION

It is not possible to have a certain decision about how and when the science started. Since the human started to think he tried to understand and describe the unknown and at the same time he followed the changes and developments. In order to keep up with those changes he tried to reach new knowledge and as a result of those efforts science fact occurred (Kaptan, 1998).

The people's solution seeking for knowing themselves and the others around, explaining occurrences and the encountered problems enabled them to reach the correct information and, as a result of this, to give the right decision (Karasar, 2012). The systematic continuity of this process contributed to information production and occurring and development of the science. Most of the information is obtained by means of research (Kaptan, 1998).

Researches are systematic and planned scientific studies made to understand the goings-on of the nature and they produce scientific information (Özdamar, 2003). Scientific research; is described as the process of collecting, analyzing, interpretation, evaluation and reporting of data in a planned way and systematically to find reliable solutions to the problems (Karasar, 2012).

Scientific researches are classified differently in different sources. While some sources classify scientific researches in regard to how the information and the truth are perceived, some classify in regard to if they are practical or not, some classify in regard to the aims and questioning type and some classify in regard to the analysis of the data gathered after research results (Ataseven, 2012).

Basically, scientific researches are examined in two types as depictive (descriptive) research and analytic (quantitative) research (Özdamar, 2003).

It is seen that in recent years scientific researches have increased in universities, research institutions and organizations. While some of these researches provide a basis for new developments, some of them test the reliability of old research results and some shed light on new developments with the obtained data and findings. Analyzing and editing scientific researches at certain fields with regular intervals and trending in the field become a guide to many scientists who study and want to study in the field (Cohen et al., 2007).

While the contribution of scientific researches to the field and researchers is a highly significant point classification of these studies, evaluating according to trends and research results are important as well. At this point, the results of content and meta-analysis which are about the studies made in certain fields provide the researchers with great conveniences.

This kind of studies draws the attention of many researchers in recent years. As a result of literature research it is seen that by defining recent trends in the field of education, crucial emphasis is laid on new studies in some content and meta-analysis made in the fields of educational sciences in Turkey, Kablan et al., (2013), Göktaş et al., (2012), Kılıç-Çakmak et al., (2013), Tomakin and Yeşilyurt, (2013), Chang et al., (2010), Gökçek et al., (2013), Gülbahar and Alper (2009), Karadağ (2010), Şimşek et al., (2009), Yalçın et al., (2009).

As the other disciplines, in the researches of Çalık et al., (2008) in the field of science and in the researches of Çiltaş et al., (2012) in the field of mathematic, current studies about the field are analyzed and essential suggestions and emphasis are made for the future researches.

In the past, some of the disciplines that were thought to be the most important were known as mathematics, biology, physics, social and medicine. Technological changes and new research methods of these basic sciences prepared the occurrence and development of sport

sciences, a field of science with a sociocultural approach to human performance and health. These developments and changes happening in today's world affect the sport concept sophisticatedly as happening to every field (Konukman and Sezen, 2000). Sport sciences is a multidisciplinary field that makes scientific researches of the fields such as physiology, pharmacology, economy, sociology, psychology, philosophy, policy, law, business, communication, statistics and has multi-interactions. The development of a scientific field depends on the level that the concepts, methods and assumptions reach (Atalay,1998).

Physical education and fields of sport, its general problems are the guide for defining the scope of sport science. Therefore, sport sciences is understood and described by Røthing as "the integrity of knowledge, expressions and methods directed with scientific norms about the problems of sport and sights of these problems" (Bağırhan,1992). Classically, the basis of sport sciences base on the concept of physical education. However, today it gains a place in the science world as sport sciences (Mirzeoğlu,2011).

In the scientific studies of sport sciences field the way to produce information unbiased, valid and reliable, as it is for all other sciences, is directly related to the quality of the researches made about the fields of sport sciences. The quality and quantity knowledge of the researches made on sport sciences consists of explanatory information about the status of the current scientific field. In this regard, considering that the thoughts of the researchers, who study or will study in sport sciences field, will change and develop because of the academic studies published in this field it is necessary for the researchers to update the used research methods and statistics systematically to understand the related literature (Yalçın et al., 2009).

As a result of literature review, no content analysis study about the scientific studies of sport sciences field in Turkey is encountered. In this sense, the research will be a resource for the studies that will be done in the field of sport sciences in the future. In this respect, we can say that our study is essential.

This research is done to analyze the papers presented at sport sciences congresses held internationally in Turkey by the society of sport sciences in terms of field of studies, research type, the number of writers and the statistical methods used in order to observe the quality and development of scientific studies of sport sciences.

MATERIAL AND METHOD

The research is a survey type. Survey type is a research approach aiming to describe the situation of yesterday and today as it is (Karasar, 2002). In our research as the papers presented at International Sport Sciences Congresses organized by the Society of Sport Sciences were analyzed in terms of content, content analysis was made. Content analysis is the classification, briefing, measuring the frequency of usage and by inferring from these categorizing of data in line with certain aims (Tavşancıl and Aslan, 2001).

The research population consists of International Sport Sciences Congress Books printed between the years 2006-2014. The research sample consists of 1624 papers out of the congress' books printed in the years 2006, 2008, 2010, 2012 and 2014 chosen according to their accessibility and which were appropriate for analyzing in terms of field of study, type of research, number of authors and statistical method used.

In the research, the data were coded into the form developed and the obtained data were transferred into SPSS program for statistical operation and as for the statistical operation frequency-percentage distribution, crosstab and chi-

square test were applied. It was also commented according to the distribution of these data. After forming crosstabs chi-square test was utilized to measure the significance of differences between two variables. In measuring differences of variables 0.05 was taken as the significance level and interpreted according to it.

Frequency-percentage distribution is a method used in experimental and survey type researches. With the help of this

distribution data are obtained as number and percentage by defining the features of one or more variables' value (Büyüköztürk,2014). In the research crosstabs were utilized to define how the papers by years were distributed in terms of field of study, type of research, number of authors and statistical method used. Crosstabs are the tables that are used to analyze the relation of two or more variables, in other words their covariance (Alpar,2010).

RESULTS

Table 1. Distribution of the Papers Presented at Congresses by Years

Variables	(N) Frequency Distribution	Percentage Distribution (%)
2006	504	31,0
2008	79	4,9
2010	253	15,6
2012	300	18,5
2014	488	30,0
Total	1624	100,0

In Table 1 the distribution of the papers presented at congresses by years were examined. According to the examination, it seen that in 2006 31%, in 2014 30%, in 2012 18,5%, in 2010 15,6% and in 2008 4,9% of the papers were presented out of 1624 papers in total.

Table 2. Comparative Distribution of Author Numbers of the Papers Presented at Congresses by Years

Variables		Single Author	Two Authors	Three or more authors	Total
Congress Years	2006	N 63	154	287	504
		% 12,5	30,6	56,9	100,0
2008	N	14	27	38	79
	%	17,7	34,2	48,1	100,0
2010	N	26	64	163	253
	%	10,3	25,3	64,4	100,0
2012	N	33	91	176	300
	%	11,0	30,3	58,7	100,0
2014	N	46	160	282	488
	%	9,4	32,8	57,8	100,0
Total	N	182	496	946	1624
	%	11,2	30,5	58,3	100,0

$\chi^2 = 11,990$ $P = 0,152$ $P > 0,05$

In Table 2, the distribution of author numbers of the papers presented at congresses by years was examined. In the examination, the chi square (χ^2) comparative distribution value of the

number of authors preparing the papers by years was found as 11,990, $P = 0,152$. This value is not statistically significant according to the significance level 0,05 ($P > 0,05$).

Table 3. Comparative Distribution of the Study Fields of the Papers Presented at Congresses by Years

Variables	Movement and Training Sciences		Physical Education and Sport Teaching		Psycho-social Field in Sport	Sport and Health	Total
	N	%	N	%	N	N	N
2006	N	123	71		220	90	504
	%	24,4	14,1		43,7	17,9	100,0
2008	N	19	12		34	14	79
	%	24,1	15,2		43,0	17,7	100,0
2010	N	60	45		81	67	253
	%	23,7	17,8		32,0	26,5	100,0
2012	N	76	39		141	44	300
	%	25,3	13,0		47,0	14,7	100,0
2014	N	147	80		203	58	488
	%	30,1	16,4		41,6	11,9	100,0
Total	N	425	247		679	273	1624
	%	26,2	15,2		41,8	16,8	100,0

$X^2= 37,735$ $P=0,000$ $P<0,05$

In Table 3, comparative distribution of the study fields of the papers presented at congresses by years was examined. In the comparison of the papers' study fields by

years the chi square (X^2) value was found 37,735, $P=0,000$. This value is statistically significant according to the significance level 0,05 ($P<0,05$).

Table 4. Comparative Distribution of Research Types of the Papers Presented at Congresses by Years

Variables	Qualitative Research		Quantitative Research		Total
	N	%	N	%	N
2006	N	63	441		504
	%	12,5	87,5		100,0
2008	N	11	68		79
	%	13,9	86,1		100,0
2010	N	18	235		253
	%	7,1	92,9		100,0
2012	N	47	253		300
	%	15,7	84,3		100,0
2014	N	39	449		488
	%	8,0	92,0		100,0
Total	N	178	1446		1624
	%	11,0	89,0		100,0

$X^2=16,985$ $P=,002$ $P<0,05$

In Table 4 the distribution of the papers presented at congresses was examined in terms of research types by years. Comparing the study fields of the papers

by years the chi square (X^2) analysis value was found as 16,985, $P=,002$. This value is statistically significant according to the significance level 0,05 ($P<0,05$).

Table 5. Comparative Distribution of Statistical Tests used in the Papers Presented at Congresses by Years

Variables		T Test	Factor Analysis	Chi-square Test	Kruskal-wallis Test	Variance Analysis	Mann-whitney U	Wilcoxon Sign Test	Friedman Test	Correlation Analysis	Regression Analysis	Percentage-Frequency	Z Test	Measures of Central Tendency	Total
2006	N	132	9	48	25	107	37	33	1	70	13	175	8	177	835
	%	15,8	1,1	5,7	3,0	12,8	4,4	4,0	0,1	8,4	1,6	21,0	1,0	21,2	100,0
2008	N	26	6	2	3	29	9	7	0	10	2	32	4	47	177
	%	14,7	3,4	1,1	1,7	16,4	5,1	4,0	0,0	5,6	1,1	18,1	2,3	26,6	100,0
2010	N	81	20	9	9	87	25	11	1	43	8	89	2	142	527
	%	15,4	3,8	1,7	1,7	16,5	4,7	2,1	0,2	8,2	1,5	16,9	0,4	26,9	100,0
2012	N	106	14	17	13	85	20	21	2	65	15	74	1	130	563
	%	18,8	2,5	3,0	2,3	15,1	3,6	3,7	0,4	11,5	2,7	13,1	0,2	23,1	100,0
2014	N	147	23	25	33	146	54	19	2	116	24	146	2	205	942
	%	15,6	2,4	2,7	3,5	15,5	5,7	2,0	0,2	12,3	2,5	15,5	0,2	21,8	100,0
Total	N	492	72	101	83	454	145	91	6	304	62	516	17	701	3044
	%	16,2	2,4	3,3	2,7	14,9	4,8	3,0	0,2	10,0	2,0	17,0	0,6	23,0	100,0

$\chi^2= 114,395$ $P=,000$ $P<0,05$

In Table 5, the comparative distribution of statistical analysis of the papers presented at congresses by years was examined. Comparing the study fields of the papers by years the chi square (χ^2) analysis value was found as 114,395, $P=,000$. This value is statistically significant according to the significance level 0,05 ($P<0,05$).

DISCUSSION AND CONCLUSIONS

When we look at the distribution of the examined papers by years it was seen that in 2006 31%, in 2014 30%, in 2012 18,5%, in 2010 15,6% and in 2008 4,9% of the papers were presented out of 1624 papers in total (Table 1). As a result of these findings it was found out that the highest number of papers was presented in 2006 and 2014, the fewest number of papers was presented in 2008.

Examining the distribution of the author numbers of the papers presented at congresses by years it was seen that out of 1624 papers in total 58,3% of them had multiple authors, 30,5% of them had two authors and 11, 2% of them had single author. When examined by years it was seen that in 2006 56,9% of the studies had multiple authors, 30,6% of them had two authors, 12,5% of them had single author; in 2008 48,1% of the studies had multiple authors, 34,2% of them had two authors, 17,7% of them had single author; in 2010 64,4% of the studies had multiple authors, 25,3% of them had two authors, 10,3% of them had single author; in 2012 58,7% of the studies had multiple authors, 30,3% of them had two authors, 11% of them had single author; in 2014 57,8% of the studies had multiple authors, 32,8% of them had two authors, 9,4% of them had single author (Table 2). When the number of authors preparing the paper was compared by years the value of chi-square (X^2) was found as 11,990. This value is not statistically significant ($p=0,152$; $p>0,05$). In other words, there is not a significant difference of the author numbers in the studies done by years.

Looking at the total distribution of the study fields of the papers presented at

congresses by years it was seen that out of 1624 papers 41,8% of the studies were about psycho-social fields, 26,2% of them were about movement and training sciences, 16,8% of them were about sport and health, 15,2% of them were about physical education and sport teaching. When looked at the comparative distribution by years it was seen that the in 2006 43,7% of the studies were about the psycho-social fields in sport, 24,4% of them were about movement and training sciences, 17,9% of them were about sport and health, 14,1% of them were about physical education and sport teaching; in 2008 43,3% of the studies were about the psycho-social fields in sport, 24,1% of them were about movement and training sciences, 17,7% of them were about sport and health, 15,2% of them were about physical education and sport teaching; in 2010 32% of the studies were about the psycho-social fields in sport, 26,5% of them were about sport and health, 23,7% of them were about movement and training sciences, 17,8% of them were about physical education and sport teaching; in 2012 47% of the studies were about the psycho-social fields in sport, 25,3% of them were about movement and training sciences, 14,7% of them were about sport and health, 13% of them were about physical education and sport teaching; in 2014 41,6% of the studies were about the psycho-social fields in sport, 30,1% of them were about movement and training sciences, 16,4% of them were about physical education and sport teaching, 11,9% of them were about sport and health (Table 3).

Comparative chi-square (X^2) analysis value of the papers' study fields by years was found as 37,735. This value is statistically significant ($p<0,05$). In other

words, there is a significant difference in the study field distribution of the papers presented at congresses by years. Examining the table in detail it was seen that psycho-social fields in sport and movement and training sciences were studied more than other sciences. As a result of this we can say that in Turkey sport scientists study the subjects of psycho-social fields in sport and movement and training sciences more than other sport science fields.

In the examination of distribution of the papers presented at congresses by years in terms of research types it was seen that out of 1624 papers 89% of the total distribution were quantitative and 11% of them were qualitative study. Looking at the distribution by years it was seen that in 2006, 87,5% of the studies were quantitative and 12,5% of them were qualitative; in 2008, 86,1% of the studies were quantitative and 13,9% of them were qualitative; in 2010, 92,9% of the studies were quantitative and 7,1% of them were qualitative; in 2012, 84,3% of the studies were quantitative and 15,7% of them were qualitative; in 2014, 92% of the studies were quantitative and 8% of them were qualitative (Table 4). Comparative chi-square (X^2) analysis value of the papers' research types by years was found as 16,985. This value is statistically significant ($p < 0,05$). In other words, there is a significant difference in the research types distribution of the papers presented at congresses by years. Examining the table in detail it was seen that quantitative researches were studied more than qualitative researches by years. As a result of this we can say that the studies that are done in sport sciences are mostly quantitative studies.

In the examination of statistical distribution of the papers presented at congresses by years it was seen that out of 1624 papers 16,2% of the total distribution were t-test,

2,4% of them were factor analysis, 3,3% of them were chi-square test, 2,7% of them were Kruskal Wallis test, 14,9% of them were variance analysis, 4,8% of them were mann-whitney u test, 3% of them were wilcoxon test, 0,2% of them were Friedman test, 10% of them were correlation analysis, 2% of them were regression analysis, 17% of them were percentage-frequency analysis, 6% of them were z test, 23% of them were measures of central tendency. Looking at the distribution by years it was seen that in 2006, 15,8% of the studies were t-test, 1,1% of them were factor analysis, 5,7% of them were chi-square test, 3% of them were kruskal wallis test, 12,8% of them were variance analysis, 4,4% of them were mann-whitney u test, 4% of them were wilcoxon test, 0,1% of them were friedman test, 8,4% of them were correlation analysis, 1,6% of them were regression analysis, 21% of them were percentage-frequency analysis, 1% of them were z test, 21,2% of them were measures of central tendency. It was seen that in 2008 14,7% of the studies were t-test, 3,4% of them were factor analysis, 1,1% of them were chi-square test, 1,7% of them were kruskal wallis test, 16,4% of them were variance analysis, 5,1% of them were mann-whitney u test, 4% of them were wilcoxon test, 5,6% of them were correlation analysis, 1,1% of them were regression analysis, 18,1% of them were percentage-frequency analysis, 2,3% of them were z test, 26,6% of them were measures of central tendency. It was seen that in 2010 15,4% of the studies were t-test, 3,8% of them were factor analysis, 1,7% of them were chi-square test, 1,7% of them were kruskal wallis test, 16,5% of them were variance analysis, 4,7% of them were mann-whitney u test, 2,1% of them were wilcoxon test, 0,2% of them were friedman test 8,2% of them were correlation analysis, 1,5% of them were regression analysis, 16,9% of them were percentage-frequency analysis, 0,4% of them were z test, 26,9% of them were measures of central tendency. It was seen

that in 2012 18,8% of the studies were t-test, 2,5% of them were factor analysis, 3% of them were chi-square test, 2,3% of them were kruskal wallis test, 15,1% of them were variance analysis, 3,6% of them were mann-whitney u test, 3,7% of them were wilcoxon test, 0,4% of them were Friedman test 11,5% of them were correlation analysis, 2,7% of them were regression analysis, 13,1% of them were percentage-frequency analysis, 0,2% of them were z test, 23,1% of them were measures of central tendency. It was seen that in 2014 15,6% of the studies were t-test, 2,4% of them were factor analysis, 2,7% of them were chi-square test, 3,5% of them were kruskal wallis test, 15,5% of them were variance analysis, 5,7% of them were mann-whitney u test, 2% of them were wilcoxon test, 0,2% of them were Friedman test 12,3% of them were correlation analysis, 2,5% of them were regression analysis, 15,5% of them were percentage-frequency analysis, 0,2% of them were z test, 21,8% of them were measures of central tendency. Comparing the papers' study fields by years chi-square (X^2) analysis value was found as 114,395 (Table 5). This value is statistically significant ($p < 0,05$). In other words, there is a significant difference in the distribution of statistical methods of the papers presented at congresses by years. Examining the table in detail it was seen that of the statistical methods measures of central tendency, percentage-frequency distribution, t-test and variance analysis were used more than other methods.

The studies done in the field of sport sciences were mostly quantitative researches and mostly measures of central tendency, percentage-frequency distribution, t-test and variance analysis were used as statistical methods, and the findings that apart from sport sciences in other fields, in the researches of Yağmur-Şahin et al., (2013), Bektaş et al.,(2013), Doğru et al., (2010), Göktaş et al., (2012), Şelcuk et al.,(2014), tests such as frequency, percentage, correlation, t-test and anova test was done as statistical

methods in the scientific studies support our research findings. With this respect, we can say that there is a similarity between our research and the researches done.

As a result of all the findings it was found out that in the papers analyzed within the research the highest number of papers presented in 2006 and 2014, the fewest number of papers was presented in 2008, most of the papers were the studies of 3 and more authors, there were few studies of single authors, there were generally quantitative studies but few qualitative studies, studies on the fields of psycho-social and movement practice had the highest number, there were few studies in the field of physical training and sports education as well as sports-health, percentage-frequency distribution and t-test were mostly used and z-test and friedman test were used less.

As a result; It can be concluded that in the papers presented at the International Sport Sciences Congresses in Turkey organized by the Society of Sport Sciences there are more studies in the fields of psycho-social in sport and movement practice sciences among the basic fields of sport sciences however there are few studies on other fields, these are generally quantitative studies, most of these papers are the studies of many authors (3 and more), among the statistical methods used multivariate tests and tests for evaluation of the relations are used less.

Suggestions;

Following the results obtained within the research it can be suggested that;

- The researchers studying in the sport sciences are guided to study on the less studied fields
- Lessons about statistics are to be taught in the schools teaching in the field of sport sciences at the level of bachelor and master degree
- Researchers doing collaborative researches in multidisciplinary fields such

as sport sciences include a statistician in their groups in order to define the correct statistical method appropriate for the field of study

➤ A study is to be done to evaluate the statistical knowledge level of the

researchers studying in the fields of sport sciences

➤ In terms of the study fields and statistical methods used in the field of sport sciences this study is to be revised in the coming years to follow the developments.

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