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Investigating The Effect Of Coronavirus Anxieties Of The Students Attending Sports High School On Distance Education

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ABSTRACT

This study aimed to investigate the effect of Covid-19 concerns on distance education of students attending sports high schools. The Athletes' Anxiety of Catching New Type Coronavirus (Covid-19) Scale (SYTKYKÖ) consisting of 16 items whose validity and reliability studies were conducted by Demir et al. in 2020 and the Opinions Regarding Distance Education Scale created by Yıldırım et al. (2014) consisting of 18 items was used as a data collection tool. The research group consists of a total of 376 participants, 192 women and 184 men, who receive education in the sports high schools of Hatay, Adana, Kahramanmaraş (Eastern Mediterranean) Region in the 2021-2022 academic year. Data were delivered from voluntary participants in the research via Google Forms. As a result of the reliability analysis of the scales; Cronbach's Alpha value of coronavirus anxiety scale in athletes was found to be 92; Cronbach's Alpha value of the opinions on distance education scale was found to be 83. As a result of the analysis, it is seen that the individual anxiety dimension has a statistically significant and negative effect on effectiveness and didacticism in distance education. It is seen that the social anxiety dimension has a statistically significant and positive effect on personal, effectiveness and instructiveness in distance education. As a result, it appears that Covid 19 anxiety has a significant impact on distance education.

Keywords: Coronavirus, Distance Education, Sport, Anxiety

Spor Liselerinde Eğitim Gören Öğrencilerin Koronavirüs Kaygılarının Uzaktan Eğitime Etkisinin İncelenmesi

ÖZ

Bu çalışmada, spor liselerinde eğitim gören öğrencilerinin Kovid-19 kaygılarının uzaktan eğitime etkisinin incelenmesi amaçlanmıştır. Veri toplama aracı olarak, Demir ve arkadaşlarının (2020) yılında geçerlik ve güvenilirlik çalışmasını yaptığı 16 maddelik Sporcuların Yeni Tip Koronavirüse (Kovid-19) Yakalanma Kaygısı Ölçeği (SYTKYKÖ) ve Yıldırım ve arkadaşları (2014) tarafından oluşturulan 18 maddelik Uzaktan Eğitime Yönelik Görüşler Ölçeği kullanılmıştır. Araştırma grubunu, 2020-2021 eğitim-öğretim yılında Hatay, Adana, Kahramanmaraş (Doğu Akdeniz) Bölgesi spor liselerinde eğitim alan 192'si kadın 184'ü erkek olmak üzere toplam 376 katılımcı oluşturmaktadır. Ölçeklerin güvenilirlik analizi sonucu; sporcularda koronavirüs kaygısı ölçeğinin Cronbach's Alpha değeri, 92; uzaktan eğitime yönelik görüşler ölçeği Cronbach's Alpha değeri, 83 olarak bulunmuştur. Analiz sonucunda bireysel kaygı boyutunun uzaktan eğitimde etkililik ve öğreticilik üzerinde istatistiksel olarak anlamlı ve negatif etkiye sahip olduğu görülmektedir. Sosyal kaygı boyutunun uzaktan eğitimde kişisel, etkililik ve öğreticilik üzerinde istatistiksel olarak anlamlı ve pozitif etkiye sahip olduğu görülmektedir. Sonuç olarak Kovid 19 kaygısının uzaktan eğitim üzerinde anlamlı etkisinin olduğu görülmektedir.

Anahtar Kelimeler: Koronavirüs, Uzaktan Eğitim, Spor, Kaygı

1. INTRODUCTION

Several new infectious diseases have emerged in different geographical regions such as Ebola, Zika and Nipah in recent years (Dhama et al., 2020). Finally, Coronavirus (Covid-19) emerged in 2019 in connection with Sars disease. Covid-19 emerged as a series of patients with pneumonia symptoms in Wuhan and Hubei Provinces of China and was later identified as symptoms related to the spread of the coronavirus (Pung et al., 2020). This situation caused the World Health Organization (WHO) to declare the Covid-19 epidemic as a global pandemic (Chappell, 2020). It was determined as a result of the researches that the disease emerged due to an animal and seafood market in Wuhan. In the following weeks, with the spread of infections in China and other countries around the world, the World Health Organization (WHO) declared the epidemic as a public health emergency of international importance on January 30, 2020. On February 12, 2020, the World Health Organization (WHO) named the disease caused by the new coronavirus Covid-19 (Fang et al., 2020). This disease causes serious discomfort and even death in individuals with chronic diseases such as chronic respiratory disease, heart disease, kidney disease (Wang et al., 2020). Covid-19 has affected Turkey as well as the whole world. The first case in our country emerged on March 11, 2020, and education was suspended for three weeks in all education levels as of March 16 in order to prevent the spread (Karadağ and Yücel, 2020). The interruption to education has affected approximately 25 million students. Approximately 16.5 million of these students are primary and secondary school students (UNESCO, 2020). As a result of the rapid increase in the number of cases, the schools were completely closed until the end of the term. As a result of the closure of schools and the interruption of education, distance education has started on TRT EBA TV channels and Education Information Network (EBA) as of March 23, 2020, so that students can get through this process with the least loss. Distance education is educational technology applications in which the sources and recipients are located far from each other, have the characteristics of individuality, flexibility and independence, and communication and interaction are provided by technical means (Uşun, 2006). Distance education has flexibility in terms of providing time and space flexibility to students (Thoms and Eryılmaz, 2014). Moreover, distance education environment has some advantageous aspects such as affordability and accessibility, being able to appeal to a wider audience, having flexibility of time and space, being able to be shaped according to the individual's learning speed and method, allowing the use of multimedia tools (Arat and Bakan, 2011).

Distance education has also disadvantageous aspects such as lack of social interaction, high cost, weakness of personal interaction, limited internet access, ineffectiveness in acquiring affective and psycho-motor behaviors for the instructor (Tryon & Bishop, 2009). Body and sport is an activity system that teaches to ensure that the functions of the body and the control of joints and muscles develops in a psychologically balanced way, to use the physical power spent in the period of work and recreational activities after school age in the most economical way, therefore, to act methodically with the control of organs. Physical education and sports activities are a complementary part of education and appear as an important tool in raising healthy people who are physically, mentally, socially and emotionally developed (Doğar, 1994). With the onset of the Covid-19 pandemic, it has had significant negative effects on mental health as well as the physical discomfort it has caused. Situations such as catching coronavirus, not being able to be treated, losing relatives cause anxiety in individuals. Anxiety is the sum of unpleasant emotional and observable reactions such as sadness, perception and tension of stressful situations (Spielberger, 2013). This situation is related to the athletes' performances, their psychological state and the level of anxiety they are exposed to (Karabulut et al., 2013). As a result of the emergence of the COVID-19 epidemic, The World Health Organization declared the disease as a pandemic. Later, in order to prevent the spread of the epidemic, various bans began to be implemented in most countries. With the prolongation of the pandemic period, psychological

problems such as fear, anxiety and stress have emerged in people. As a result of this situation, changes have occurred in people's routine life flows (Özenoğlu et al., 2021). One of the places most affected by the epidemic, which is highly contagious, has been the field of education (Üstün and Özçiftçi, 2020). In particular, universities have switched to the distance education process, which is an alternative to face-to-face education, in order to resolve this crisis and relieve students' concerns (Gewin, 2020). In this context, the problem situation of our study; The aim is to reveal the anxiety of sports high school students regarding distance education due to the COVID-19 epidemic process. With the impact of the COVID-19 disease on the world, all formal education institutions stopped their activities in the face-to-face environment. This situation has caused intense anxiety levels on individuals both socially and individually. In this study; It was aimed to determine the effect of anxiety states of sports high school students on distance education during the COVID-19 epidemic. There are many studies on distance education in the literature. Yılmaz et al. (2022) examined the views of students receiving sports education on distance education practices. In the results of working; Sports sciences faculty students stated that they did not find synchronous distance education practices effective enough compared to traditional education, but distance education was instructive. In another study, Çiçek et al. (2020) conducted a study on COVID-19 and education. As a result of the research; They observed that students generally have both positive and negative thoughts about distance education. In another study, Paksoy (2020) found that the COVID-19 epidemic significantly affected people's fears and behaviors. In the study conducted by Uçkaç (2021), it was determined that during the COVID-19 pandemic, students were more worried about the transmission of the virus and the fear of killing, rather than their career and future concerns with distance education. When the studies in the field are examined; No study has been found that examines the effects of sports high school students, COVID-19 anxiety and distance education together.

This research reveals the originality of the study and its contribution to the field. The facts that physical education and sports course is a course in which psychomotor and affective features are acquired, and the learner and the teacher need to be in contact, etc. are the characteristics of physical education and sports course. The shift of education to online distance education platforms during the Covid-19 process has led to the transfer of physical education and sports courses, in which psychomotor and affective features are acquired, to distance education platforms. Some deficiencies may occur in the application of physical education and sports lessons as a result of the education and training carried out with online systems. In this sense, the aim of our study is to reveal the effects of the coronavirus anxiety of sports high school students on distance education.

2. METHOD

2.1. Research Model

The relational screening model was used in our study, which was conducted according to the screening model. The relational screening model is a research approach that explains the co-variation of two or more variables (Karasar, 2015). Structural equation model was used in our research. Structural equation, variables used in the research It aims to test the theoretical structure between the two through data. Additionally, factor analysis and regression analysis, represented by latent and observed variables. It is a theoretical structure (Şimşek, 2007).

2.2. Research Group

The research group consists of a total of 376 participants, 192 women and 184 men, receiving education at Sports High Schools in Hatay, Adana, Kahramanmaraş (Eastern Mediterranean) Region in the 2021-

2022 academic year. The data were delivered to the participants via Google Forms and the voluntary participation of the participants in the research was taken as the basis. 392 people were reached totally, and 16 missing or incorrect forms were not evaluated, so the number of forms to be included in the analysis was 376. The effects of the coronavirus anxiety of sports high school students on distance education were examined.

2.3. Data Collection Tool

In the study, the first part of the research was the personal information form developed by the researcher, the second part was the Athletes' Anxiety of Catching New Type Coronavirus (Covid-19) Scale and the third part was the Opinions Regarding Distance Education Scale.

2.3.1. The Athletes' Anxiety of Catching New Type Coronavirus (Covid-19) Scale

The Athletes' Anxiety of Catching New Type Coronavirus (Covid-19) Scale (SYTKYKÖ) consisting of 16 items whose validity and reliability studies were conducted by Demir et al. in 2020 consists of 11-item Individual Anxiety Scale (BK) and 5-item Socialization Anxiety (SK) sub-dimensions. The lowest score that can be obtained in the evaluations to be made on the YTKYKÖ total score is 16 and the highest score is 80. The scale, which consists of 16 items, is in the five-point Likert type. The scale consists of 1 “Strongly Disagree” to 5 “Strongly Agree”. Only the 2nd item in the scale should be coded reverse as it includes negative statements. The Cronbach's Alpha value of the individual anxiety dimension of the coronavirus anxiety scale for athletes was found to be 0,90; the social anxiety dimension was found to be 0,87 and the scale total was 0.92. DFA was performed on the 16 items that make up the scale and it was determined that it is related to the 16 items and the 2-dimensional scale structure. When the correlations between the variables were examined in our study, it was seen that the factor loads of the items were above 0.40 and all correlation relations were significant ($p < 0.05$). In our study, fit indexes were calculated as $\chi^2/df = 2.938$; RMSEA=.70; GFI=.91; AGFI=.88; CFI=.88 and SRMR=.04 were found.

2.3.2. Opinions Regarding Distance Education Scale

Opinions Regarding Distance Education Scale created by Yıldırım et al. (2014) was used to determine the views of the participants on Distance Education. A 5-point Likert type scale was used to evaluate the items of the scale. The scale consists of 1 “Strongly Disagree” and 5 “Strongly Agree”. The Scale of Opinions on Distance Education consists of 18 items and 4 sub-dimensions. The sub-dimensions consist of 6 items of personal suitability, 5 items of effectiveness, 4 items of instructional and 3 items of tendency. It was found that the Cronbach's Alpha value of the personal fitness sub-dimension of the distance education scale was 0,80, the effectiveness was 0,79, instructiveness was 0,68, the predisposition dimension was 0,67 and the scale total was 0.84. DFA was performed on 16 items constituting the scale. 14. Since the factor load of the item was below 0.40, it was removed from the analysis and it was determined that it was related to 17 items and 4-dimensional scale structure. When the correlations between the variables were examined in our study, it was seen that the factor loads of the items were above 0.40 and all correlations were significant ($p < 0.05$). In our study, fit indices were $\chi^2/df = 2,076$; RMSEA=.05; GFI=.93; AGFI=.90; CFI=.95 and SRMR=.05 were found in the fit index calculations.

2.4. Data Analysis

Statistical analysis of the obtained data was carried out using AMOS 21.0 and SPSS 25.0 package software programs. Coefficient calculations of frequency, percentage and reliability were made statistically. Structural equation model (path) analysis was applied to determine the effect of coronavirus on distance education. The reliability of the scale was determined by the Cronbach's Alpha coefficient. The reference values of the fit values related to the Confirmatory Factor Analysis applied to the scales; $0 \leq \chi^2 \leq 3$ means that the model is perfectly compatible; A RMSEA value of ≤ 0.08 indicates an acceptable fit (Meydan & Şeşen, 2015), a CFI value of 0.80 is an acceptable fit; A value between $0.90 \leq CFI \leq 1.00$ has a perfect fit (Dehon et al. 2005); GFI, AGFI values of 0.80 and above are acceptable, and 0.90 and above indicate perfect fit (Schumacher & Lamax, 1996); AGFI values of 0.80 and above indicate acceptable fit, 0.90 and above indicate excellent fit (Shevlin et al. 2000), SRMR values of 0.10 and below are acceptable, and values between 0 and 0.05 and below indicate perfect fit. (Schermelleh-Engel et al., 2003).

Table 2 Goodness of Fit Results of the Model for the First Level Multi-Factor Confirmatory Factor Analysis of the Effect of Coronavirus Anxiety on Tendency in Distance Education

	YEM Values	Suggested Values	Perfect Fit	Resources
χ^2/df	2.231	≤ 5	$0 \leq \chi^2 \leq 3$	Meydan and Şeşen, 2015:37
RMSEA	0.065	≤ 0.08	$0 \leq RMSEA \leq ,05$	Simon et al. 2010: 234-243; Brown, 2006
AGFI	0.810	$\geq 0,80$	$\geq 0,90$	Shevlin et al. 2000: 181-185; Schumacher ve Lamax, 1996
GFI	0.836	≥ 0.80	$0.95 \leq AGFI \leq 1,00$	
CFI	0.901	≥ 0.80	$0.90 \leq CFI \leq 1,00$	Dehon et al. 2005: 799-810; Hu and Bentler, 1999
SRMR	,066	≤ 0.10	$0 \leq SRMR \leq 0,05$	Schermelleh-Engel et al.,2003:23-74; Kline, 2005

Table 3. Results Regarding the Research Model

Effect	Estimate (β)	Standard Error	t	p	Result
Individual \rightarrow Personal	⁽¹⁾ -3,707	,683	-5,426	***	Confirm
Individual \rightarrow Effectiveness	⁽²⁾ -3,238	,598	-5,417	***	Confirm
Individual \rightarrow Instructiveness	⁽³⁾ -2,254	,437	-5,153	***	Confirm
Individual \rightarrow Tendency	⁽⁴⁾ -,403	,264	-1,528	,127	No confirm
Social \rightarrow Personal	⁽⁵⁾ 6,298	1,171	5,376	***	Confirm
Social \rightarrow Effectiveness	⁽⁶⁾ 5,431	1,023	5,310	***	Confirm
Social \rightarrow Instructiveness	⁽⁷⁾ 3,551	,735	4,830	***	Confirm
Social \rightarrow Tendency	⁽⁸⁾ ,653	,427	1,529	,126	No confirm

In Table 2, a model was created to investigate the effect of coronavirus anxiety on distance education. As a result of the analysis, it is seen that the individual anxiety dimension has a statistically significant and negative effect on effectiveness and instructiveness in distance education (β : -3.707⁽¹⁾; -3,238⁽²⁾; -2,254⁽³⁾, $p < 0.05$). It is seen that the social anxiety dimension has a statistically significant and positive effect on personal, effectiveness and instructiveness in distance education (β : 6,298⁽⁵⁾; 5,431⁽⁶⁾; 3,553⁽⁷⁾, $p < 0.05$). Coronavirus anxiety explains 39.9% ($R^2 = 0.399$) of the change on teaching in distance education, 79.3% ($R^2 = .793$) of the change on effectiveness in distance education, and 79.7% of the change on personality in distance education ($R^2 = .799$) and explains 1.2% of the variation on susceptibility ($R^2 = .012$).

4. DISCUSSION And CONCLUSION

In this study, it was aimed to examine the effects of coronavirus anxiety of students attending sports high schools on distance education. Considering the demographic variables that make up the sample of the research; in the age category 48.9% (n=184) consists of the age group of 16-17. In the gender variable, 51.1% (n=192) consists of female students, at grade level 33.5% (n=126) consists of 9th grade students; in the branch variable 71.5 (n=269) consists of students participating in team sports.

A model was created to investigate the effect of coronavirus anxiety on distance education. As a result of the analysis, it is seen that the individual anxiety dimension has a statistically significant and negative effect on effectiveness and instructiveness in distance education (β : -3.707(1); -3,238(2); -2,254(3), $p < 0.05$). It is seen that the social anxiety dimension has a statistically significant and positive effect on personal, effectiveness and instructiveness in distance education (β : 6,298(5); 5,431(6); 3,553(7), $p < 0.05$). Coronavirus anxiety explains 39.9% ($R^2 = 0.399$) of the change on teaching in distance education, 79.3% ($R^2 = .793$) of the change on effectiveness in distance education, and 79.7% of the change on personality in distance education ($R^2 = .799$) and explains 1.2% of the variation on susceptibility

(R²=.012).

There are studies in the literature that have parallels with our research. Özmaden and Yıldız (2020) concluded in the study in which they examined the effect of Covid-19 phobia on distance education that the increase in Covid-19 anxiety has a significant and positive relationship on distance education. Utomo (2020) concluded in the study on distance education acquired by university students in Indonesia during the Covid-19 pandemic that 53% of students were not satisfied with the distance education process. In her research, Türküresin (2020) concluded that the students' views on the scale differ significantly in a positive way when they follow the lessons regularly. Düzgün and Sulak (2020) concluded in their studies in which prospective teachers' views on distance education practices during the Covid-19 pandemic process were examined that their distance education scores are low. Considering these results, it can be said that the rapid emergence of Covid-19 and the low level of readiness of the students cause individuals not to be ready for distance education personally. Moreover, it can cause people to have negative attitudes towards distance education because they have problems with the internet and computers.

Students found themselves face to face with distance education that they had never experienced before due to reasons such as the emergence of the coronavirus process at the end of 2019 and its prominence in our country as of 2020, and the fact that almost no negation that would affect education and training in our country was experienced before. Undoubtedly, the contribution of distance education in completing the academic deficiencies of students or preventing them from going back academically is an undeniable reality in pandemic conditions where face-to-face education is not possible. They stated that they will eliminate the shortage of time, space and material among the benefits that the courses to be given by distance education will provide to the students. The positive features of distance education are that it provides cost, equality of opportunity, ability to use technologies and the ability to use, and eliminates the barrier of space and time between the student and the instructor (Kaya and Önder, 2002). However, it is not sufficient in areas that need to be experienced by doing and living, such as physical education and sports lessons. Problems such as low interaction and not understanding the lessons are also seen as negative features (Aras & Karakaya, 2020).

It shows that the open and distance education system in Turkey should be strengthened in terms of infrastructure, access, content, design, implementation, quality, security, legislation and pedagogy during the Covid-19 process (Can, 2020). Equality of opportunity should be provided to individuals at all levels of education, and innovations should be made to increase the applicability and learnability of the course in lessons that require more practice such as physical education and sports lessons. Studies can be conducted on how both students and teachers will be more productive by working in coordination with a scientific committee to be formed with the participation of experts for physical education and sports lessons that require more practice. In addition, using more visual videos related to physical education in the distance education process will increase learning. For this reason, visual and auditory materials related to the subjects should be increased in physical education and sports lessons. Moreover, it is necessary to provide both teachers and students with the necessary information about how to use distance education more efficiently.

The coronavirus process has affected life in many ways, as well as education. For about two years, online education has been started in education. In this process, our study gains importance in order to determine the effect of distance education, which is carried out in order to prevent the spread of coronavirus and to reduce the anxiety of individuals, on anxiety.

As a result, in this study, distance education program appears as a supportive element rather than an alternative in courses such as physical education and sports. It is of great importance to carry out studies on eliminating the application deficiencies of students after the pandemic.

In future research, research can be conducted to examine the coronavirus anxiety status of students as a result of the pandemic. In addition, a new scale study can be done that measures the positive and negative aspects of distance education.

Declaration of Conflicting Interests and Ethics

The authors declare no conflict of interest. This research study complies with research publishing ethics. The scientific and legal responsibility for manuscripts published in IJATE belongs to the authors. Ethical

approval of this study was obtained by Aydın Adnan Menderes University Social and Human Sciences Research Ethics Committee with the decision no. 5 at the meeting numbered 31906847/050.04.04-08-154 on 30.09.2021.

Authorship Contribution Statement

Authors are expected to present author contributions statement to their manuscript such as; Author 1: Resources, Visualization, Software, Formal Analysis, and Methodology. Author 2: Supervision, Writing-original draft and Validation. Author 3: Investigation.

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