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# EXAMINING THE CHANGES REGARDING "SPORTS AT HOME" IN THE FRAMEWORK OF YOUTUBE COMMENTS BEFORE AND DURING THE PANDEMIC\*

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Abstract: This study aims to reveal the difference between opinions of individuals who do sports at home by watching videos on YouTube, which gained popularity all over the world before and during the pandemic. In order to examine the change in subject of "sports at home" before and during the pandemic, the most watched "exercise" themed video titled "Do This Everyday to Lose Weight" was selected as data source and user comments were categorized thematically. To analyze data set, Mozdeh Big Data Text Analysis (2020) was used to collect user comments from videos and the number of interactions of these comments via API connection. Qualitative content analysis was used to analyze user comments. The themes were categorized as feedback as a result of regular participation, feedback to content creator, body image anxiety, being happy with body changes, insights focused on weight loss, motivation, challenge and struggle, barriers to participation, flow experience, health status reporting, leisure and enjoyment. It was determined that especially the groups of challenging and struggling, use of leisure time, enjoyment were the themes that received more interaction.

Key Words: Pandemic, sports at home, exercise, YouTube

# PANDEMİ ÖNCESİ VE SÜRECİNDE YOUTUBE YORUMLARI ÇERÇEVESİNDE "EVDE SPOR" KONUSUNA İLİŞKİN DEĞİŞİMLERİN İNCELENMESİ

Öz: Bu çalışma pandemi sürecinde tüm dünya tarafından belirli dönemlerde popülerlik kazanan YouTube dijital platformu üzerinden video izleyerek evde spor yapan bireylerin pandemi öncesi ile pandemi sürecindeki görüşleri arasındaki farklılığı ortaya koymayı amaçlamaktadır. Çalışma kapsamında pandemi öncesi ve sürecinde "evde spor" konusuna ilişkin değişimi incelemek amacıyla, en çok izlenen "exercise at home" temalı "Do This Everyday to Lose Weight" başlıklı videosu veri kaynağı olarak seçilmiş ve kullanıcı yorumları tematik bir şekilde kategorize edilmiştir. Veri setini analiz etmek üzere Mozdeh Big Data Text Analysis (2020) aracı kullanılarak, videolardan kullanıcı yorumları ve bu yorumların etkileşim sayıları API bağlantısıyla toplanmıştır. Kullanıcı yorumlarının analizinde nitel tümevarımcı içerik analizi kullanılmıştır. Gerçekleştirilen analiz sonucunda ortaya çıkan temalar; düzenli katılım sonucu geri bildirim, içerik üreticiye geri bildirim, beden görünümü kaygısı, beden değişimlerinden mutlu olma, kilo vermeye odaklanan görüşler, motivasyon, zorlayıcılık ve mücadele, katılım engelleri, akış deneyimi, sağlık durumu bildirimi, boş zamanları değerlendirme ve keyif almadır. Pandemi sürecinde özellikle zorlayıcılık ve mücadele ile boş zamanları değerlendirme ve keyif almaya ilişkin yorumların pandemi öncesine göre daha çok etkileşim alınan temalar olduğu tespit edilmiştir.

Anahtar Kelimeler: Pandemi, evde spor, egzersiz, YouTube

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#### INTRODUCTION

Çınar and Oğuz (2020) define epidemics as a biological disaster that has been encountered many times throughout human history and needs to be combated. With the emergence of the epidemic, measures including the process of preparedness and reducing the risk of disease need to be implemented, but the measures to be implemented can also bring difficulties. The Covid-19 pandemic, which emerged suddenly in the current process and has an extremely high rate of spread, has confronted societies with many problems.

Measures that have the potential to reduce daily physical activity such as quarantine decision, closure of parks and gyms, gradual cancellation of sports activities and organizations, and behavioral strategies such as social distancing rules have been seen as effective methods to limit the spread of the disease (Gilat & Cole, 2020; Woods et al., 2020). While research has been conducted on the dramatic effects of these methods (Brooks et al., 2020), Sadıkoğlu (2021) stated that online trainings were initiated during the period of staying at home and people tended to do sports at home. During this period, online fitness and online Pilates exercises gained popularity, participants had the advantage of being able to watch such content at any time and place (Kim et al., 2023), and there was an increase in the use of interactive online social media that allows two-way or live interaction (Kim & Kim, 2022).

Therefore, the Covid-19 pandemic has been an important factor in changing exercise and routine habits in the world population, bringing positive physical, psychological and behavioral outcomes, as Lim and Pranata (2021) found in their study.

Hammami et al. (2022) also emphasized exercising at home as a recommendation and stated that it is important for those who cannot find outdoor physical activity to exercise at home in order to prevent the risk of transmission. Therefore, as practices such as curfews affect physical and mental health, home-based leisure activities offer an opportunity to stay fit and healthy and can alleviate the effects of quarantine, such as depression (Woods et al., 2020).

With this global pandemic affecting the whole world, it is argued that people's lifestyles have changed and different behavior patterns have emerged in various areas, including leisure time (Sivan, 2020). Changes and transformations in the habit of doing sports, many experts or athletes encouraging their followers to do "sports at home" by broadcasting live from their social media accounts, alternative content titled "solutions to sedentary life" published on digital platforms, and many more have influenced individuals to stay healthy by doing sports at home during the pandemic period and raised awareness in this sense. Because it is considered very important that people's lifestyle is not completely interrupted or changed during the quarantine period in order to spend this process by adopting a healthy lifestyle (Mattioli et al., 2020). According to Jiménez-Pavón et al. (2020), although outdoor activities offer more accessible opportunities during the pandemic period, active life can also be provided by exercising at home with virtual trainers or virtual gyms that also offer accessible opportunities and it is also stated that the YouTube platform is a trusted medium (Vancini et al., 2022), with YouTube channels and uploaded videos focusing on sports exercises at home, with high accessibility for consumers with busy lifestyles without time and space constraints (Dey et al., 2020).

This study aims to examine the emerging awareness of the concept of "sports at home" within the scope of digital users' perceptions and to compare the differences before and during the pandemic through comments on a video on the YouTube digital platform.

#### **METHOD**

#### Research Model

Within the scope of the study, content analysis method, one of the qualitative research methods, was applied to compare the perceptions of participation in "sports at home" before and during the pandemic through comments on a video on the YouTube digital platform.

#### **Data Collection**

In order to collect data for the study, as a result of the searches made on the YouTube digital platform using the keywords "exercise at home", "sports at home", it was deemed appropriate to select the video with the highest number of user comments and the highest viewership rate among the videos published by independent content producers as the data source. Since the analysis to be conducted on sports at home before and during the pandemic will be based on a single video, the video with the highest number of views, the most watched and the most comments in terms of interaction was selected. In determining the sample, which is thought to represent the universe on YouTube, metrics such as the number of views or uploads should be based on metrics such as the number of views or uploads after searching for a specific word (Kuş, 2022). For this reason, the video titled "Do This Everyday to Lose Weight" shared by Chloe Ting, who is known for her content in the YouTube ecosystem and has more than 24 million followers, was selected. Uploaded on August 8, 2019, this video of 14 minutes and 22 seconds was selected because it has the highest engagement in terms of both the number of video views and the number of comments, with 204,641,100 million views.

When the video is analyzed in terms of content, it was shared by Chloe Ting, who is known on the YouTube digital platform with her full-body home workouts and has approximately 25 million followers, who offers a 2-week "challenge" exercise program by doing sports at home. In obtaining user comments on the video, the most intense period of the pandemic process was taken as the basis when determining which date range to examine the comments, and in determining the pre-pandemic date range, it was deemed appropriate to take the months to be examined during the pandemic process as the date range. For this purpose, firstly, user comments made in September, October and November 2021 were obtained, as these months were the most intense months in terms of the pandemic and restrictions were imposed by many countries. In order to evaluate user comments before the pandemic, September, October and November 2019 were determined as the date, as it was necessary to consider comments before December 2019, the date when the Covid-19 virus outbreak first emerged in the world.

Mozdeh Big Data Text Analysis (2020) software was used to obtain user comments in English text format and collect data before and during the pandemic. A total of 149 thousand primary user comments on the video constituted the population of the study, and all comments were imported in text format through the Mozdeh Big Data Text Analysis program. All user comments outside the targeted dates (September, October, November 2019 - September, October, November 2021) were excluded from the data set. In addition, after removing user comments that consisted of only emoji(s), slang words, only punctuation marks and only links, all user comments made in September, October and November 2019 before the pandemic (n=89) and all user comments made in September, October and November 2021 during the pandemic process (n=201) constitute the sample of the study.

# **Data Analysis**

After the data collection phase, the data analysis phase started. Qualitative inductive content analysis method was used to analyze the data set consisting of 290 user comments in English text format. The stages of this method are structured as follows;

- Creating categories with an inductive perspective by analyzing the collected text data (user comments),
- Creating themes for the categorized data,
- Determining the agreement rate of the coders regarding the themes.

The 290 comments written by digital users were categorized thematically by the researchers to determine user perceptions, divided into themes, the data that could not be agreed upon were re-examined and the themes with a consensus percentage of 100% were reported in the findings section.

#### **FINDINGS**

The current findings indicate the existence of 12 different themes. As seen in Table 1, these themes are as follows: feedback as a result of regular participation, feedback to content creator (with positive, negative and question sub-themes), body appearance anxiety, being happy with body changes, insights focused on weight loss, motivation (with intrinsic and extrinsic sub-themes), challenge and struggle, barriers to participation, flow experience, health status reporting, leisure and enjoyment, and other.

In this context, the group categorized under the title "other" should be mentioned first. User comments categorized under the heading "other" were excluded from interpretable expressions because they did not serve the purpose and did not make sense. This theme consists of inappropriate sentence patterns and comments that have nothing to do with the video or the generated themes (e.g. "I ate oatmeal with a slice of bread in the morning and didn't eat lunch, my family didn't go to the market anyway, my girlfriend is currently doing the 26-day hourglass figure").

**Table 1.** Themes and number of digital user comments

Themes	Comments before the Pandemic	Comments during the Pandemic
Feedback as a Result of Regular Participation	18	17
Body Image Anxiety	3	8
Insights Focused on Weight Loss	15	28
Challenge and Struggle	8	37
Flow Experience	1	1
Feedback to Content Creator	17	38
Being Happy with Body Changes	3	8
Motivation	10	17
Barriers to Participation	1	8
Health Status Reporting	4	1
Leisure and Enjoyment	0	11
Other	9	27

# Feedback as a Result of Regular Participation

This theme includes comments in which users shared their experiences on a day-by-day basis as a result of their daily participation in the exercise, ranging from 2 to 14 days. Some of the users also mentioned their starting weights, goals and how long it would take.

Sample comments on the theme before the pandemic:

"I will do it! Day 1: I feel dizzy and like I'm going to throw up, but thank God I did it! Day 2: I feel like I burned so many calories, I feel so satisfied Day 3: Similar to yesterday but I think I did the exercise perfectly today Day 4: I didn't exercise today Day 5: I am too lazy to do it but I did. Day 6: I see a difference. Day 7: I did..."

Sample comments addressed during the pandemic process were expressed as follows:

"It's been eight months since I did this training. I may have forgotten how much it got me in shape. Now I have to start again. Day 1: I did the whole workout! Mostly at low intensity. Day 2: I finished the whole workout... Day 3: I finished all of it. I did the cycling exercise very easily today. I also sleep better and look happier. Day 4: Today I got the Covid vaccine, it's a break day but I want to keep going."

# **Body Image Anxiety**

Users' negative thoughts about weight, body appearance and body perception, and comments that prioritize these negative thoughts as the reason for starting exercise are included under the theme of body image anxiety. It is also possible to see user comments such as "will these exercises make my legs more muscular and stronger?", which are concerned about the changes that may occur in their body as a result of exercise.

Sample comments from before the pandemic are as follows:

"Is there any possibility that these exercises will make my legs bulky and thicker?"

"I feel too fat for these exercises, I would like to look like you but I don't know if I can, I guess I'm not suitable."

The comments created during the pandemic process are as follows:

"Does anyone know if it is ok to do this exercise if I only want to lose fat from the abdominal area and not from any other part of my body and I don't want to lose more weight?"

# **Insights Focused on Weight Loss**

In this theme, it is noticeable that users are struggling with the weight problem. Some user comments were related to the weight gained due to a sedentary life, while others were related to the weight gained due to chronic diseases and the desire to lose this weight.

Some examples of comments before the pandemic are as follows:

"I thought I would try this and try to keep it going for the next 2 weeks because I have been struggling with my weight for a long time and I am ready to change that."

During the pandemic process, it was discussed as follows:

"I had a very strict exercise program because I was an athlete, but the lockdown and Covid ruined everything, so I can't participate in any outside activities and I couldn't follow my training program because of my laziness. I gained 12 kg, I'm very sedentary and I feel very bad about it."

# **Challenge and Struggle**

The theme of challenge and struggle includes comments about the degree to which the exercise program in the video felt challenging. This theme includes comments that were intended to be challenging, such as being challenged, being physically challenged and experiencing muscle pain.

Some examples of comments before the pandemic are as follows:

- "I've been doing abdominal exercises on and off for a few weeks so it seemed easier, but this exercise is very hard."
- "I almost gave up in the first half, keeping my fingers crossed for the next 13 days."
- "I literally died doing it. I had a hard time doing some of the exercises, so I chose low-impact ones."

Some of the comments made during the pandemic:

- "Yes, I think I'm dead; sitting at home, this is the result; 2 exercises and I'm breathing like a person on a death bed."
- "The first day is not over yet, I'm in the middle of the first set and I'm sweating a lot, it's hard to breathe. I didn't do the push-ups because they are too hard and impossible to do. Covid you ruined us."
- "Some moves were hard but the last one was easy and I knew I could do it! I feel really sweaty."

# **Flow Experience**

In the theme that emerged as flow experience, a comment was found expressing the state of not understanding how time passes by in the flow of the moment.

The comment before the pandemic is as follows:

"This process depends on working consistently. I went 2 months without even noticing when I wasn't doing perfectly. At first, I was wondering how I was going to finish, but now I realize that I'm exercising even during school."

The comment addressed during the pandemic process was expressed as follows:

"I didn't know it would be like this when I started, now it feels easier. When I tried it last month, I quit, but when I look at it now, this is my biggest regret. It is very easy to progress, it feels good when you start, and you finish without realizing how time passes, and you are surprised at yourself how I got this way."

### **Feedback to Content Creator**

Looking at the comments before the pandemic, examples of positive comments to the creator include the following:

- "Finally, an exercise trainer that I feel is right for me."
- "A trainer who explains and conveys endurance-building exercises in an excellent way."

During the pandemic, the comments were formed as follows:

- "Many thanks to the trainer for putting together and presenting such difficult exercises."
- "Suggestion: try some aerobic exercises that are light and then move on to Chloe Ting's slender leg and ab exercises. It will work wonders."

Examples of critical comments directed at the creator before the pandemic are as follows:

"Squat jumps are too intense, knees barely lift, barely do push-ups. You can hardly do the exercises yourself."

# During the pandemic:

"I have been doing these exercises for 4 days but I don't see any results. Please tell me what else I can do other than these exercises."

# **Being Happy with Body Changes**

In this theme, there are comments about the positive feelings that users experience in the face of the physical changes they have achieved as a result of the exercises. It is also observed that despite the difficulties, they continue to exercise because of the body appearance they have achieved.

Examples of comments before the pandemic are as follows:

"I didn't sweat as much and I noticed that I could do the exercise with much better form and duration. I have a faint abdominal line and my obliques look a bit more defined, my waist is much slimmer."

"I keep pushing myself and after just two days I started to feel my body tightening up a bit."

Sample comments during the pandemic:

"It's been great! I haven't lost a lot of weight but I definitely have more muscle than fat now and my stomach is much flatter. The exercises have become much easier. All it really takes is discipline and consistency, and I think it's up to us to do that in the pandemic, I highly recommend it."

"I did this workout on and off for a month from mid-September until today. Unfortunately, I didn't stick to the program, and I was still eating what I wanted to eat, but in smaller portions. After a while I noticed that my stomach was flatter."

#### Motivation

The pre-pandemic comments showing the satisfaction and fulfillment resulting from participation in exercises with intrinsic motivation were expressed as follows:

"It hurts a lot, it burns, but at the same time I know that these exercises burn a lot of fat, so I keep doing it and I push myself and at the end of the exercise I feel stronger and more confident. I am motivated, I will continue."

Some of the comments made during the pandemic process are as follows:

"I am really excited to start this challenge! I've tried so many different videos but nothing has worked so far, so I'm hoping this challenge will get me to where I want to be! I feel so much better day by day, I'm so proud of myself."

Extrinsically motivated participation in exercises and comments on the video emerged as follows before the pandemic:

"There is a costume party at my friend's house in about 3 weeks and I need to lose some weight to fit into the costume I want to wear. I hope this video helps."

Examples of comments during the pandemic process are as follows:

"Although it is boring to do sports at home, it is very saving during the pandemic! At least the pandemic is an opportunity to lose the weight I gained. I can't wait to start!"

# **Barriers to Participation**

The participation barrier theme consists of comments expressing the barriers and constraints to exercise. Expressions such as inability to exercise due to physical conditions, environmental conditions, lack of motivation emerged.

Examples of statements regarding barriers to participation before the pandemic:

"I want to exercise every day, but it is very difficult, because I live in a student dormitory, in a room I share with 2 people and we have a very small space, so I can't move much even if I want to. University life is hard."

Sample comments on the pandemic process:

- "I gained a lot of weight after my pregnancy, my baby is now 6 months old. I started this exercise yesterday, 5 minutes into the exercise my baby started crying, he wants to be held. I hope I can do the full set today."
- "I don't know how I look when I work out and I'm embarrassed so most of the time I do it in secret."
- "I caught Covid, I'm in a lot of pain, I couldn't continue exercising."

# **Health Status Reporting**

The other theme that emerged regarding doing sports at home is related to health status.

Sample comments that emerged under the health theme before the pandemic are as follows:

- "It is good to do sports at home, but I feel safer when I do sports in the gym with a trainer. Because these exercises are very sudden and hard transitions, I constantly experience dizziness and nausea."
- "I get heartburn while doing this exercise."

Comments on the theme related to the pandemic process:

"Home based exercises are very important to be healthier during the pandemic, taking time for myself and doing these exercises that require effort is very good for my health, my neck and back hurt less, I sleep better and most importantly, I have almost no headache."

### **Leisure and Enjoyment**

User comments emphasizing that exercising at home by watching the video in their free time is enjoyable and provides the opportunity to make good use of free time were not encountered before the pandemic. However, with the curfew and other restrictions during the pandemic, it is seen that the emphasis on doing sports at home with educational videos as a means of utilizing leisure time emerged in many comments.

Sample comments that emerged under leisure and enjoyment theme during the pandemic are as follows:

- "I don't care how much I weigh or how I look, I wanted to do something that was good for me and I found it."
- "I started to like this exercise day by day because it's fun and I have a lot of free time at home, so exercising helps me relax and I enjoy my time."
- "I really enjoyed doing this exercise, my time is very productive, I'm really proud of myself for not giving it up."
- "I wanted to skip today but at the same time I had to do it for myself, I couldn't throw this time away, now I feel great and refreshed!"

# **DISCUSSION AND CONCLUSION**

The COVID-19 pandemic has fundamentally impacted the importance of discretionary activities for leisure and personal wellbeing. MacKenzie and Goodnow (2020) stated that the pandemic has revealed what the space we live in can offer with staying at home and has shown that satisfying adventures can be found much closer than we think. In this study, 12

themes emerged regarding digital users' perceptions of the concept of sport at home before and during the pandemic, namely; feedback as a result of regular participation, feedback to content creator (with positive, negative and question sub-themes), body appearance anxiety, being happy with body changes, insights focused on weight loss, motivation (with intrinsic and extrinsic sub-themes), challenge and struggle, barriers to participation, flow experience, health status reporting, leisure and enjoyment, and other.

According to the results of the study, the evaluation of leisure time and enjoyment that emerged by staying at home during the pandemic process emerged as a theme that made a difference compared to the pre-pandemic period. With the chaos caused by the COVID-19 pandemic, the presentation of home-based exercises on digital media as a "war operation" to promote awareness of sports and physical activity has turned into a leisure time activity with safe and beneficial results (Vancini et al., 2022). As Woods et al. (2020) and Sivan (2020) state, with this global pandemic affecting the whole world, it is seen that practices such as curfews negatively affect health, but due to the meaningful opportunities offered by homebased leisure activities, lifestyles have changed after the pandemic and changes and transformations have emerged in behavior patterns regarding leisure time. In addition, according to the study by Ziyagil and Nevruz (2020), although the search rates of the term home-based exercise did not change worldwide, it became one of the most searched keywords at the beginning of the pandemic. Similarly, Kim et al. (2023) found that 90% of Americans who exercise regularly maintained their home exercise routine even after the pandemic and stated that they continued to exercise at home despite gyms returning to normal operation. According to a report released by the Korea Consumer Agency in February 2021, the number of mentions of the word "home training" on social media in 2020 increased by 112.7% since 2019 and by 137.8% after the first phase of the pandemic. Studies have shown that home training has gained significant traction after the pandemic (Chi & Kim 2021; Kim & Kwak 2021), while active living advice from governments and health organizations has played an important role in promoting indoor leisure activities (Ding et al., 2020).

Another finding of the study is that the theme of motivation was emphasized more during the pandemic than in the pre-pandemic period. According to Mutz et al. (2021), the closure of the gyms, fitness centers and other related facilities has disrupted the regular sports routines of a large part of the population. Many people have started to replace organized sports activities with individual workouts at home. Training at home is an easier option for those who have already the necessary equipment. The study found that participants used digital media at least once during the COVID-19 pandemic to participate in sports activities. It was also noted that the largest proportion were fitness videos from video sharing platforms such as YouTube. In addition, Parker et al. (2021) concluded that the frequency of adolescents and adults using digital platforms for physical activity in April and May 2020, when the pandemic was intense, was higher than before the pandemic.

According to the study results of Vancini et al. (2022), with the #stayathome campaign carried out worldwide during the pandemic period, interest in virtual and online physical training guidance and home-based physical activity and hybrid exercises increased and searches on YouTube on "Covid-19 and exercise" continued to increase. In addition, YouTube announced that the number of fitness videos uploaded to YouTube in 2020 became greater more than five times compared to the previous year (Murphy Marcos, 2020).

Another theme that emerged in relation to doing sports at home, "health status reporting", is a finding that is also emphasized in other studies. In his study, Sadıkoğlu (2021) stated that

although professional athletes who are active in sports train at home during lockdown, their performance decreases as a result of insufficient efficiency and added that if sports are done in a programmed manner during the stay at home period, it has been revealed that the health problems caused by the quarantine process will decrease. Carriedo et al. (2020) found that elderly individuals who engaged in moderate physical activity during quarantine showed positive mood in terms of self-efficacy and optimism and showed low scores in depressive symptoms.

Within the scope of the research, it was revealed that individuals allocated less time for homebased physical activity before the pandemic compared to the pandemic process, within the pace of work and life struggle. With the quarantine measures during the pandemic period, it was revealed that there were increases in individuals' feelings and thoughts, especially about weight gain and inactivity, in their expressions about evaluating and enjoying leisure time, and in their feedback to the creator as a result of both asking questions and participating in exercises, compared to pre-pandemic. In the theme of challenge and struggle, it was revealed that participants had difficulties in both the continuation of the exercises and the continuity of participation as one of the negative consequences of sedentary life during the pandemic process, but despite this, there were many comments emphasizing intrinsic motivation and that the participants were eager for the concept of sports at home. Another important result was seen in the theme of leisure time utilization. While there were no comments on the theme of evaluating and enjoying leisure time before the pandemic, it was concluded that the concept of time spent at home gained importance with the effect of the quarantine during the pandemic process, creating a serious awareness among individuals to evaluate leisure time in this sense.

As a result of the study, which aimed to identify and compare the public's perception of sports at home before and during the pandemic, it was revealed that the COVID-19 pandemic process has led to changes in behaviors, perceptions and attitudes towards sports and exercise activities. Home training is no longer perceived as a solitary exercise, but has become a trend that can lead to communication and sharing through platforms and even provide elements of sports competition. It can be said that home training showed a gradual growth in the pre-COVID-19 situation, but a sharp growth after COVID-19, which means that the sports industry continues to change and grow with new trends (Lee et al., 2023).

#### Limitations

The research is limited to the comments and opinions on Chloe Ting's video titled "Do This Everyday to Lose Weight" shared on YouTube social media platform in September, October and November 2019 and 2021.

There is no study in the literature that examines the perceptions of digital users on the subject of "sports at home" using the Mozdeh Big Data Text Analysis (2020) program. In this context, the research is a preliminary study. Since COVID is still being seen in our country and in some countries, this study was created by addressing certain dates before and during COVID. From this point of view, it is among the recommendations that more comprehensive studies will emerge when the COVID process ends completely in the world.

Another limitation of the study is that demographic characteristics such as age, gender, marital status, educational status, occupation or physical activity level could not be obtained through the Mozdeh program, and information on these characteristics of the users who commented could not be obtained from the YouTube digital platform. For this reason, it may be recommended in future research to examine the changes caused by the COVID-19

pandemic in the perception of the concept of sports at home according to demographic characteristics.

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