

# University Students and Recreation in the Covid-19 Process: Metaphor Analysis

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## ABSTRACT

**Background:** Covid-19 pandemic disease, which affects the world, causes serious mortality rates. In addition to medical studies worldwide, various restriction rules have also been developed by countries in order to slow the pace of the pandemic and achieve normal living conditions. In order to reduce the sorrowful consequences of the pandemic process, home quarantines were decided and although social distance rules were applied in outdoor environments, hygiene conditions were tried to be increased at the maximum level and education was suspended for an indefinite period. A total of 39 students participated in this study, which aims to examine the recreation perceptions of sports science students in the Covid-19 process through metaphors. In order to collect the data, the demographic information questionnaire and descriptive open-ended questions prepared by the researchers were asked to the participants and the students were asked to fill the gaps in the question with the concept that visualized.

**Aim:** In this study, it was aimed to analyze the situation of recreation activities in the covid-19 process through literature review, data analysis, and observations.

**Methods:** Qualitative research method was used in this study. In this regard, our study was conducted using a (phenomenological) pattern, which is one of the qualitative research methods.

**Results:** When Table 1 is examined, it is seen that the participants of the study consisted of 9 (23.1%) female students and 30 (76.9%) male students. The majority are around 21 (38.5%) and 22 (35.9) years old, the mean age of the total participant is 21. Only 1 (2.6%) person was infected with the Covid-19 virus, and the rest of 38 (97.4%) people were not infected. 2 (5.1%) of the participants reside in the village, 13 (33.3) in the district, and 24 (61.5) in the province. The situation of doing sports actively, on the other hand, 24 (61.5) people are doing sports actively, 15 (38.5) people are not doing sports actively.

**Conclusion:** When the research results were examined, it was concluded that the participant students were exposed to various negative psychological situations such as their anxiety and stress levels increased, they became intolerant of uncertainty as their recreational activities stopped during the Covid-19 period.

**Keywords:** Covid-19, recreation, metaphor

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## INTRODUCTION

The new Coronavirus (Covid-19), which started in the Far East, followed the European continent and affected the whole world and defined on January 13, 2020<sup>1</sup>, causes many mandatory restrictions on the habits of normal life. In direct proportion to the rapidly spreading virus on humans, the transmission process is very short and the number of infected individuals is increasing. Hence, the best way for individuals to protect themselves is to limit their contact with other people almost completely and even not leave their homes, which is the safest area possible. Based on this, as in all countries of the world, various measures have also been taken in our country to reduce the risk of contamination and to prevent cases that may result in death. These measures are measures that aimed at minimizing the risk of contamination such as restrict travel, life fits into the home (HES) code scans, interrupt schools for an indefinite period according to the course of the case, require the use of masks, develop various punishments to deter those who do not wear masks, weekend lockdowns, the outside areas (restaurants, cafes, etc.) merely go to take-away service and no customers are accepted, going out between 05:00 in the morning and 21:00 in the weekdays.

All these restrictions have severely restricted the mobility of individuals, which was of great importance in their lives before the Covid-19 pandemic, and caused

negative physical, psychological and social effects on individuals. Examples of negative effects can be exemplified as follows: physical inactivity at home and unwanted changes in body values<sup>2,3,4,5,6</sup>, increased anxiety symptoms due to fear of getting sick psychologically<sup>7</sup> or having conflicts within the household<sup>8,9</sup> and lastly, their social life is subject to the mentioned restrictions. The impact of tourism activities during the pandemic period<sup>10,11,12</sup> is evidence of the restrictions on social life. Along with the restriction of social life, recreational activities that are an integral part of our lives have almost come to a halt.

According to Tütüncü<sup>13</sup>, recreation is "a multidisciplinary field of study that includes activities that people do voluntarily and at their own will, without harming the nature in their free and leisure time in order to increase the quality of life." Based on this definition, health and recreation should be directly related. Sağcan<sup>14</sup> relates the two concepts to each other as follows; health is not just the absence of a disease, but a state of complete physical, mental and social well-being. People's desire to live long and healthy leads them to recreational activities that allow them to relax both physically and mentally. Accordingly, staying away from recreational activities during the Covid-19 process made individuals encounter the above-mentioned negative situations.

People are in the learning process from birth and they continue this with their five sense organs, voluntarily or

involuntarily. Although everything we see around us is learned permanently in line with our interest, from the first moment we see it, it reaches a various perception profile in our minds. As an example, it can be said that a young child was surprised by the sounds of the turbine when s/he first went to the volleyball game, and learned that this was normal now and would not be affected by the sounds when s/he left later. In brief, our perceptions towards our environment occur when we first meet the stimulus. Our metaphors are to explain our perception of stimuli, objects, and many events by likening to another object or phenomenon. According to Oxford et al. (1998), metaphor is defined as explaining a concept, fact, or event by analogy with another concept, fact, or event<sup>15</sup>

In this study, it was aimed to analyze the situation of recreation activities in the covid-19 process through literature review, data analysis, and observations. Therefore, university students tried to examine the Covid 19 period and how recreation was perceived through the metaphorical concepts they stated themselves. The fact that only university students participated in the study and conducted qualitatively is the limitation of the study on the sample size.

**MATERIAL & METHODS**

**Study Group:** This study was conducted with the participation of a total of 39 people, consisting of students of the Faculty of Sports Sciences of Giresun University, who continued their education in the 2021 Covid-19 pandemic process. They were determined by random method based on the volunteering of the participants. 30 male and 9 female students participated in the study and their mean age is 21.

**Research Model:** Qualitative research method was used in this study. According to Glaser<sup>16</sup>, qualitative research is an approach that prioritizes researching and understanding social phenomena within the environment they find connected with, with an understanding based on establishing a theory. In this definition, "theorizing" means a modeling study that explains some previously unknown results in relation to each other based on the collected data<sup>17</sup>. Metaphors can be used both as descriptive and comparison tools in understanding social phenomena<sup>18,19</sup>. In this regard, our study was conducted using a (phenomenological) pattern, which is one of the qualitative research methods. Individual experiences constitute the basis of this approach. Here, the researcher is concerned with the participant's personal (subjective) experiences and examines the individual's perceptions and the meanings they attribute to the events<sup>20,21</sup>. According to the philosophy discipline, which contributes greatly to qualitative studies; if we want to reveal and understand the truth, we must first understand how people perceive these facts<sup>22</sup>.

**Data Collection Tool and Its Reliability:** In order to collect the data, the demographic information form created by the researchers and the descriptive question document used to determine the metaphorical perceptions were used. The demographic information form includes information on age, sex, active sports activity, and whether it has been infected with Covid-19. As a descriptive question, "I liken recreational activities during the Covid-19 pandemic process ..... because ....." question pattern is used,

which they can express their opinions. As a continuation of the question, the explanation of "because" was needed and thus, the thoughts of the participants were tried to completely understood. 3 out of 39 data obtained from the research were not included in the study since they did not fit the scope of the research. For the reliability of the data, the reliability of the findings was calculated with the formula for the percentage of congruence proposed by Miles and Huberman<sup>23</sup> for qualitative studies.

Formula calculation result; The value of reliability = 36 / 39x 100 = 92 has been reached. According to this result, the reliability of the study is sufficient.

$$\text{Reliability} = \frac{\text{the number of forms agreed upon}}{\text{total number of forms}} \times 100$$

**Analysis of the Data:** For the data obtained in the research, the frequency and percentage values of the changes in the demographic information section were examined, and thematic content analysis was applied for open-ended questions. Before starting the analysis, each answer given to the open-ended question was coded in the form of [number of participants = Pn]. The data collected in content analysis are coded and classified according to these codes. Afterwards, themes that can explain the data at a general level and collect the codes under certain categories are found. The codes are first brought together in order to find the themes, and the common aspects between them are tried to be found. In a sense, this is a thematic coding process and categorization of the collected data through codes. If there are too many themes achieved, a classification can be performed for a meta-theme according to the interrelationships of the themes. It should be considered whether the various parts of the data set are effectively represented according to the emerging themes. At this stage, it is beneficial for an external researcher to examine whether the emerging themes reflect the data set sufficiently and whether the data are organized effectively according to these themes and to make suggestions to the researcher<sup>24</sup>.

**RESULTS**

The demographic variables of Giresun University Faculty of Sport Sciences students in the 2021 Covid-19 pandemic process are given in Table 1.

**Table 1.** Demographic characteristics of the participants

Variable		N	f	Variable	N	f	
Sex	Female	9	23.1	Age	19	1	2.6
	Male	30	76.9		20	1	2.6
Covid-19 infection	Yes	1	2.6	21	15	38.5	
	No	38	97.4	22	14	35.9	
Living place	Village	2	5.1	23	3	7.7	
				24	2	5.1	
	District	13	33.3	25	3	7.7	
				Province	24	61.5	Status of doing sport actively
				No	15	38.5	

When Table 1 is examined, it is seen that the participants of the study consisted of 9 (23.1%) female students and 30 (76.9%) male students. The majority are around 21 (38.5%) and 22 (35.9) years old, the mean age of the total participant is 21. Only 1 (2.6%) person was infected with the Covid-19 virus, and the rest of 38 (97.4%)

people were not infected. 2 (5.1%) of the participants reside in the village, 13 (33.3) in the district, and 24 (61.5) in the province. The situation of doing sports actively, on the other hand, 24 (61.5) people are doing sports actively, 15 (38.5) people are not doing sports actively.

When the table is examined, although almost all of the participants live in places where the number of people is high (province-district), only 1 person infected by the Covid-19 virus. Once again, when the pandemic and the number of people doing sports are compared, it is seen that more than half of the participants continue to do sports. The contradictory relationship between the variables can be interpreted by considering that the participants attach importance to hygiene in the process and that they do active sports activities away from other people or at home.

**Table 2.** Metaphors about recreational activities in the period of Covid-19.

Metaphor	N	Reason
<i>Nightmare / Psychological breakdown</i>	9	The thought that all their life-related order and expectations will not come true.
<i>Emptiness</i>	8	No recreational activity can possible during this period.
<i>Friend</i>	6	Transferring everything spoken to friends while doing recreational activities to others
<i>War</i>	5	Nothing is finished but suspended, life is the priority.
<i>Housebound and Punishment</i>	4	Nature's housebound of people at home as a method of punishment.
<i>Diseases experienced as a child</i>	2	Willing to go out, however not being able to go out during illness.
<i>Collapse of the Ottoman Empire</i>	1	Reduced activities in their life.
<i>Red Light</i>	1	Life has to stop otherwise, there may be more problems.
<b>Total</b>	36	

**Table 3.** Examination and interpretation of the obtained metaphors under categories.

Categories	N	%	Description
<i>Social life negativity</i>	10	28	Disruption of the flow of life, cessation of recreational activities, impairment of physical capacity, and problems in communication with people.
<i>Mental breakdown</i>	26	72	Poor psychological mood and tendency to question life, inability to tolerate more lockdown, increased pessimism and anger, negative expectations about life.
<b>Total</b>	36	100	

Table 2 lists the phenomena that participants likened recreational activities to during the covid-19 period, from high to low: Mostly, "nightmare / mental breakdown" (9 people) was compared to the mood, then it was perceived as "emptiness" (8 people), and since it was known that the virus was transmitted from person to person, they likened it to a "friend" (6 people) relationship and this was associated with gossip. (5 people) who perceive it as "war" stated that the most significant thing in the world is to survive first, and (4 people) who perceive it as "housebound and punishment" stated that they were bored nature as a method of punishing people. In the process of Covid-19, comparing recreation to "childhood illnesses" (2 people) is to indicate the mood of the necessity to stay at home with the desire to be outside. Lastly, it can be interpreted that the metaphors of "the collapse of the Ottoman Empire and the red light" (2 people) stopped recreational activities when they were previously very active and their physical capacity decreased, while the red light analogy was stated considering the bad state alarm situation or the life fluency-stopping effect of the virus. With the restrictions of being

locked at home and perceived

When Table 3 is examined, it is seen that the metaphors with which the participants associate covid-19 and recreational activities are examined under categories. When the metaphors were examined, it was found appropriate by the researchers to create the categories as "social life negativity" and "mental breakdown". As the reason for this, the inferences obtained from the general comments of the participants are presented in the description section. When the interpretation is made by looking at the table, it is understood that the participants were psychologically negatively affected by this process and their longing for recreational activities. When Table 1 and other tables were compared, it was concluded that the participants acted within the scope of social distance and hygiene rules. In this study, which is associated with recreation, it can be interpreted that participating in recreational activities during the Covid-19 process was seen as a dream by the participants and they were pessimistic thinking that the pandemic period would not end.

## DISCUSSION

According to the results of the study aiming to examine the thoughts of the sports sciences faculty students on recreational activities through the Covid-19 pandemic process; it is understood from the number of people that the students adapted to the restriction conditions during the pandemic process and the number of infected people (1 person). In addition to the positive findings, mostly negative results were obtained such as the participants passed through this process with a very bad mood and had a negative and pessimistic attitude towards life. It can be interpreted that they experience "mental breakdown" due to constant staying at home, penal sanctions applied to reduce the risk rate, perhaps familial discussions, socialization limitations, stopping life, and most significantly, fear of survival.

When the metaphorical concepts obtained were examined, it was concluded that when the Covid-19 process was considered, the concept of recreation was likened to negative concepts such as a period of war, chaos, punishment, and regression in this process. Once again, the main reason for this situation may be the ones listed above.

Recreative activities positively affect individuals physically and psychologically, and many studies can be given as examples<sup>25,26,27,28,29,30</sup>. During the Covid-19 process, the reduction of recreational activities and normal living habits to a minimum causes serious psychological, physical, and social disorders in individuals<sup>17,31,32,33</sup>. There are studies in the literature that conclude that individuals in the quarantine period can meet their recreational needs to some extent with home games<sup>34</sup> and leave positive effects on psychology as well.

Akalın et al.<sup>35</sup> as a result of their research on the psychological effects of the Covid-19 pandemic and the quarantine, concluded that individuals who have pets, live in a detached house and have good financial status can better overcome the quarantine process, while they concluded that intolerance to uncertainty, lack of leisure time and reasons arising from the home environment as

leading predictor problems in individuals. These results are compatible with the findings of our study. Participants' analogy of the Covid-19 process as "emptiness or war, chaos" is evidence of intolerance to uncertainty.

Bekaroğlu and Yılmaz<sup>36</sup>, in their compilation studies developed by conducting various field scans on the psychological effects of the Covid-19 process, concluded that fear and anxiety are intensely experienced in young people and anxiety disorders increase. When the answers given by the sports sciences faculty students who stay away from recreational activities within the scope of this study are examined, the findings of the two studies are consistent. The students' comparison of the pandemic process to the period of "Ottoman collapse" indicates that they are worried and fearful about the time and the future.

Şahinler et al.<sup>37</sup> examined their work on examining the aggression levels of students of sports sciences faculty who engaged in physical activity in the Covid-19 process through different variables. And they generally found significant differences between these variables and passive aggression. Passive aggression is individuals' behaviors such as getting offended, gossiping, or not reacting without violent and vocal reactions to incidents. The significant distinction here is that the individual does not care about the event, but rather reacts with a silent acceptance. The "mental breakdown" category of the study we have done with these results is compatible.

In addition to simulating the perceptions of people on phenomena with concepts (metaphor), another method of expression is drawings. Küçükşen<sup>38</sup> observed in their research in which they examined the published cartoon drawings during the Covid-19 pandemic process, the drawing contents generally consist of themes such as anxiety, worrying, unhappiness, housebound and the need to acquire different occupations. The result of this study and the results of our study are parallel to each other. The metaphors that the participants present as data with the longing for recreational activities in the Covid-19 process are almost the same as the facts in Küçükşen's analysis.

Arı and Arslan<sup>39</sup> are in direct proportion to the results of the research in which they tried to determine the metaphorical perceptions of middle school students about the Covid-19 process. Both research results are correlated with the negativities of the Covid-19 process and the pessimism of individuals. Based on this, it can be said that the Covid-19 process causes the same results at different ages.

## CONCLUSION

A total of 39 students, selected by random method on a voluntary basis, participated in the study, which aims to examine the metaphorical perceptions of sports sciences faculty students during the Covid-19 pandemic process. In order to analyze the students' perceptions of associating Covid-19 and recreation, a descriptive open-ended question was asked, and the words that simulated the concepts were asked to be written where the gap was left in the questions.

When the obtained data were examined, it was seen that the 3 data were not suitable for the purpose of the study and were not included in the evaluation. As a result of the content analysis, it was seen that the students

compared the Covid-19 pandemic process to a total of 8 concepts that included deep negativities such as "nightmare, mental breakdown, emptiness, friendship, illness, red light, the collapse of the ottoman empire, war and chaos." In their descriptions of analogy, they included sentences stating that their lives have come to a halt, such as their recreational activities, the increase in the process of being closed at home due to the risk of rapid spread (friendship=gossip), and as a result of this, mental disorders such as anxiety occur.

When the 8 metaphors obtained were examined, it was found appropriate to be examined under two categories, and these categories were considered as social life negativity and mental breakdown. When the literature is examined, it can be said that our study is a descriptive evidence for the studies on human psychology of the Covid-19 process. As the concepts obtained are thought to reflect the effects of individuals regarding the process such as fear, anxiety, stress, social breakdown, boredom, intolerance, and reduced mobility. Suggestions for researchers who will conduct similar studies;

- In order to determine individual perceptions in the Covid-19 process, a deep analysis can be brought to the literature by conducting mixed method studies.
- Contrary to all the negativities, studies can be conducted that evaluate the positive aspects of the process on students or other individuals.
- By researching the effects of home games in the pandemic process, research can be conducted that receive suggestions from the participants for a positive process.
- When the literature is examined, it is seen that sports science students generally have high social relationship and communication skill scores. From this point of view, it becomes significant to examine the communication levels of the individuals who are at home during the pandemic process with the household. Household communication levels of sports sciences and other field students can be compared.

## REFERENCES

1. T.C. Ministry of Health, Covid-19 Guide, March 2020
2. ÖZTÜRK, O., & BAYRAKTAR, D. (2020). At the Dawn of Pandemics: COVID-19 and Physical Inactivity. *Izmir Katip Çelebi University Journal of Health Sciences Faculty*, 5(2), 143-146.
3. TURAL, E. (2020). The Effect of Physical Activity Level on The Quality of Life in The Covid-19 Pandemic Period Home Quarantine. *Van Health Sciences Journal*, 13(Supplement), 18-26.
4. Ercan, Ş., & Keklicek, H. (2020). COVID-19 Investigation of the Change in Physical Activity Levels of University Students Due to their Pandemic. *Izmir Katip Çelebi University Journal of Health Sciences Faculty*, 5(2), 69-74.
5. Eskici, G. (2020). Covid-19 pandemic: Nutritional advice for quarantine. *Anatolian Clinic the Journal of Medical Sciences*, 25, 124-129.
6. Arslan, E., & Ercan, S. (2020). Covid-19 pandemic and the importance of exercise in the social isolation process. *Journal of Sports Medicine*, 55(2), 188-191.
7. Bozkurt, Y., Zeybek, Z., & Aşkın, R. (2020). Covid-19 pandemic: Psychological effects and therapeutic interventions. *Istanbul Commerce University Journal of Social Sciences*, 19(37), 304-318.
8. Serhat Öztürk, M., Yılmaz, N., Erbil, D. D., & Hazer, O.

- (2020). Examination of Conflict and Unity-Solidarity Situation in Households during the Covid-19 Pandemic Period. *Electronic Turkish Studies*, 15(4).
9. Ünal, B., & Gülseren, L. (2020). CThe invisible face of the OVID-19 pandemic: Domestic violence against women. The hidden side of COVID-19 pandemic: Domestic violence) *Journal of Clinical Psychiatry*, 23, 89-94
  10. Yusuf, A. C. A. R. (2020). New coronavirus (Covid-19) outbreak and its impact on tourism activities. *Journal of Current Tourism Research*, 4(1), 7-21.
  11. Çakır, P., & Barakazı, M. (2020). The Impact of the Coranavirus Process on the Tourism Sector and Measures Taken Against the Epidemic. *Anadolu University Journal of Social Sciences*, 20(3), 313-332.
  12. Alaeddinoğlu, F., & Serkan, R. O. L. (2020). Covid-19 pandemic and its effects on tourism. *Yüzüncü Yıl University Journal of the Institute of Social Sciences, (Epidemic Diseases Special Issue)*, 233-258.
  13. Tütüncü, Ö. (2012). Rekreasyon ve rekreasyon terapisinin yaşam kalitesindeki rolü. *Anatolia: Journal of Tourism Research*, 23(2), 248-252.
  14. Sağcan, M. (1986). *Recession and Tourism*. Izmir: Cumhuriyet Printing House.
  15. Şaban, A. (2004). Introductory Classroom Teacher Candidates' Advanced Metaphors Regarding the Concept of "Teacher". *Turkish Journal of Educational Sciences* (2).2.
  16. Glaser, B. (1978). *Theoretical Sensitivity*. San Francisco: University of California.
  17. Yıldırım, S. (2020). Social-Psychological View of Outbreaks: The Case of Covid-19 (Coronavirus) Pandemic. *Electronic Turkish Studies*, 15(4).
  18. Silman, F., & Şimşek, H. (2006). A Metaphorical View to Schools and Central Education Institutions in Turkey and the United States. *Education Research*, (23), 177-187.
  19. Örücü, D. (2012). Elementary School Teachers' Metaphoric Perspectives on the Classroom and Classroom Management: A Comparative Case Study. *Elementary Education Online*, 11(2). 342-352
  20. Baş T., Akturan U. (2008). *Qualitative Research Methods: Qualitative Data Analysis with Nvivo 7.0*. Seçkin Publishing, Ankara, 84.
  21. Ayyıldız, T. (2016). Analysis of University Students' Metaphoric Perceptions Towards the Concept of Dance. *Journal of Sport Sciences*, 1 (2). 15
  22. Yıldırım, A. ve Şimşek, H. (1999). *Qualitative research methods in the social sciences*. Ankara: Seçkin Publishing.
  23. Miles M. B., Huberman A. M. (1994). *An expanded sourcebook qualitative data analysis*. California: Sage Publications.
  24. Yıldırım A., Şimşek H. (2013). *Qualitative research methods in the social sciences*. Ankara: Seçkin.
  25. Hollar, D., May, K. & Colman, A. (2019). Parks and Recreation: Centers for Eating and Physical Activity Behavior Interventions. In *Global Perspectives on Childhood Obesity* (pp. 277-285). Academic Press.
  26. Lawson, L.M., Bandy, M., Kadolph, A., Le, A. & Pettersson, S. (2019). The Descriptive Study of Concerns of Parents of Children with ASD and Factors Related to Obesity. *Therapeutic Recreation Journal*, 53(2), 117-131.
  27. Lee, K.H., Heo, J., Jayaraman, R. & Dawson, S. (2019). Proximity to parks and natural areas as an environmental determinant to spatial disparities in obesity prevalence. *Applied Geography*, 112.
  28. Akpınar, A. (2019). Investigation of the relationship between university campus green space quality and students' stress and mental health. 2nd International Agriculture, Environment and Health Congress, 18-19 October 2019, Aydın.
  29. Demirel, M. (2019). Leisure Involvement and Happiness Levels of Individuals Having Fitness Center Membership. *Journal of Education and Learning*, 8(6).
  30. Ekinçi, N.E. & Özdilek, C. (2019). Investigation of University Students' Awareness of Recreational Activities. *International Online Journal of Educational Sciences*, 11(2).
  31. Aslan, R. (2020). How Covid-19 Affects Physiology and Psychology?. *Ayrıntı Dergisi*, 8(88).
  32. Bozkurt, Y., Zeybek, Z., & Aşkın, R. (2020). Covid-19 pandemic: Psychological effects and therapeutic interventions. *Istanbul Commerce University Journal of Social Sciences*, 19(37), 304-318.
  33. Bostan, S., Erdem, R., Öztürk, Y. E., Kılıç, T., & Yılmaz, A. (2020). The Effect of COVID-19 Pandemic on the Turkish Society. *Electronic Journal of General Medicine*, 17(6).
  34. Gümüşgöl, O. & Aydoğan, R. (2020). Evaluation of Leisure Spending at Home with New Type of Coronavirus-Covid 19 Sources with In-House Recreative Games [Recreational Games To Be Played at Free Time Period Staying Home Due To Novel Coronavirus-Covid 19], *Sports Education Magazine*, 4 (1), 107-114
  35. Akalın, S., Özgüner, İ., & Şakiroğlu, M. (2020). Psychological Effects of Covid-19 Outbreak and Quarantine. *Electronic Turkish Studies*, 15(4).
  36. Bekaroğlu, E. ve Yılmaz, T. (2020). COVID-19 and its psychological implications: A review from a clinical psychology perspective. *Object*, 8(18), 573-584. DOI: 10.7816/object-08-18-14
  37. Şahinler, Y , Ulukan, M , Ulukan, H . (2020). Investigation of Aggression Levels of Sports Sciences Students Performing Physical Activity in the Covid-19 Process. *Mediterranean Journal of Sport Sciences*, 3 (1) , 171-184 . DOI: 10.38021/asbid.748273
  38. Küçükşen, K . (2020). A SCIENTIFIC ANALYSIS OF THE REFLECTION OF "HOME STATES" ON CARTOONS DURING COVID-19 DAYS. *Journal of Eurasian Social and Economic Studies* , 7 (6) , 38-57
  39. Arı, A. G., & Arslan, K. (2020). Secondary School Students' Metaphoric Perceptions of Covid-19. *Electronic Turkish Studies*, 15(6).