

In the Middle of the Pandemic: COVID 19 Metaphor for University Student Athletes is Beyond A Negative Phenomenon!

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ABSTRACT

Aim: The purpose of this research is to determine the perceptions of university student athletes regarding the concept of COVID-19, with the help of metaphor.

Methods: The research group consists of 101 (Age average = 21.11±2.96) licenced university student athletes, 52 of whom are women and 49 men, who are actively doing sports in different branches (volleyball, basketball, wrestling, swimming, etc.) affiliated with sports clubs in different provinces of Turkey. As a data collection tool, a 'metaphor form' was prepared to determine the participants' perceptions of COVID-19. The form asked participants to complete the following sentence; "COVID-19 is like ...; because ...".

Results: We collected the metaphors in two categories as positive and negative. Positive metaphors consist of a total of three categories and three themes under the categories. Negative metaphors consist of four categories and eight themes under these categories. We observed that participants mostly developed metaphors regarding the concept of COVID-19 in the category of "being blocked", the concept is followed by the categories of "mental impact" and "perception".

Conclusion: As a result; in the context of pandemic and sports COVID-19 presents some preliminary observations on sports and being involved in sports is progressing in these uncertain times.

Keywords: COVID-19, athlete, sport, metaphor, qualitative research, university student

INTRODUCTION

The pandemic that affected the world appeared on December 31, 2019 in Wuhan, China's Hubei province, with the name of SARS-CoV-2 virus. The World Health Organisation has named it 'Severe Acute Respiratory Syndrome-Coronavirus-2' (SARS-CoV-2) and named the disease it causes COVID-19 (Corona Virus Disease 2019)^{1,2}. After the identification of the first case on March 11, 2020, the rapid increase in cases and patients brought along increased measures³. In this process, as in many countries, Turkey also canceled or postponed training or competitions in various sports branches, mainly in amateur sports. As a result, the isolation process of athletes who survived their illness less severely or who had a high risk of carrying the disease started. To reduce and prevent the spread of the COVID-19 pandemic, the public was advised by various authorities to stay home⁴. On the other hand, physical activity and sports programs, fitness centers, public parks have been closed temporarily; as a result of social distance practices physical activity was significantly reduced⁵. These restrictions and the uncertainties brought about by the pandemic process brought along important social and psychological changes in people's lives. The concerns of the athletes who are significantly affected by this situation are the restriction of sports activities. When all these factors above are combined, we concluded that social isolation significantly affects mental health. In this context, researchers examined the effects of the COVID-19 pandemic on athletes^{6,7}. It has been reflected in the researches that there is concern about doing sports during the pandemic or returning to sports after the pandemic^{8,9}. It is important how situations such as a pandemic, earthquake, flood etc. traumatise people. One of the best examples of this situation is the detection of a significant decrease in physical activity in children and adolescents

three years after the earthquake in Japan in 2011¹⁰. The data of the aforementioned research were indicative of how such processes can affect people's perceptions and behaviour. Therefore, our current research aims to determine how athletes perceive COVID-19, their thoughts on COVID-19, what they think about it, what they liken it to, and what they associate it with, with the method of metaphors. Metaphors move facts from one field to another, filter and describe reality in a simple way. Metaphors are in all areas of life¹¹. Patton¹² defines metaphor as essentially a tool for explaining an object or event. More than one description can be made to an experienced even or phenomenon with the help of metaphors. We examined the literature, there are many metaphors in the field of sports sciences; however, we haven't found any studies on the perception of athletes regarding the concept of COVID-19^{13,14,15,16,17,18,19,20,21}. This research aims to reveal the metaphorical perceptions of athletes who couldn't train during the pandemic process, who stayed home due to the cancellation of the competitions due to COVID-19.

MATERIAL & METHODS

Research design: In this study we used a qualitative research model, which is deeply concerned with how people make sense of their lives and worlds and how they construct them; we used the phenomenology approach which assumes the essence is the essence with assumption and shared experiences²². Patton¹², stated that phenomenology aims at gaining an in-depth understanding of the meaning or nature of daily experiences, and that any emotion can be at its focal point, as well as in any culture. Creswell²³ defines phenomenology as a research design in which individuals describe their experiences and base the source of this description on philosophy and psychology.

Participants: The research group consists of 101 licenced university student athletes, 52 of whom are women and 49 men, who are actively doing sports in different branches (volleyball, basketball, handball, wrestling, athletics, fencing, swimming, etc.) affiliated with sports clubs in Turkey. The ages of 101 university student athletes who participated in the study ranges from 18 to 29 and the age average is 21.11 ± 2.96 .

In a phenomenological study, the sampling strategy is in a very narrow range; the purposeful sampling method was used in accordance with the condition that the individuals participating in the study have experience with the phenomenon studied²⁴. We used 'criterion sampling', one of the purposeful sampling methods. Patton¹² states that criterion sampling can be used to determine the characteristics of a predetermined criterion in depth for all situations in the data system. Merriam²² states that criterion-based sampling does not only explain the criteria used but also explains why it is important and directly reflects the purpose of the research.

Data collection tool: The data in the research were obtained using a metaphor form consisting of a semi-structured question prepared by the researcher. The questions in the form were prepared using "Google Forms", the aim was to reach the participants more easily. The promotional text of the questionnaire and the link to the online form was sent to the university student athletes via e-mail. The online questionnaire was left open to access for 15 days, the questionnaire was closed after the data entry and it was prepared for statistical analysis. Therefore, each university student athlete was asked to write a metaphor for the concept of COVID-19 and write in a sentence why they chose that metaphor and what kind of connotation did the metaphor have for them. The form asked participants to complete the following sentence; "COVID-19 is like _____; because _____".

Analysis of data: In the first stage of data analysis, the answers given were numbered from 2 to 102. Content analysis was made and inductive analysis was followed in analysing the metaphors produced by university student athletes based on experience and observation. Patton¹², defines content analysis as an effort to express the data in order to determine the basic consistency and meanings by focusing on qualitative material, and states that the findings derived from the data as a result of the interaction of the researcher with the data as 'inductive'.

In a qualitative study, the findings, category, theme and concept reached inductively are an imprecise hypothesis or even a form of theory that relates to a particular aspect of the study, and this does not mean the researcher has no idea about the phenomenon or the result or has an 'empty mind'²². This is often referred to as 'open coding' to emphasise the importance of being open, and the researcher is indulged in the data, examines the descriptive and detailed data collected, finds the main theme, turns the data into a meaningful structure and strives to find the embedded one¹¹. In the second stage, the suitability of participants' expressions and answers and the existence of data to be considered invalid were examined. After analysing the data, we turned the metaphors into a table and created a category for each item. During the creation of the categories, we created two

categories as positive and negative; we placed a total of 101 metaphors stated by university student athletes for the concept of COVID-1, taking into account their expressions. Patton¹² said "validity, reliability and generalisability evaluation study suggestions and results are the most important dimensions in judgment. In a qualitative research, "validity" is an attempt to evaluate the accuracy of the findings and is best described as the researcher and participants²⁴. In this context, the relationship between the codes that emerged during the analysis of the answers obtained and the categories and themes were directly taken from the university student athletes' expressions. To ensure the reliability of the study, the researchers conducted the process of creating categories and themes independently and then reached a consensus¹¹. The analysis of the data was checked and finalised by three field experts for the categories and themes found. The following formula was used for the reliability of data analysis; $[\text{Consensus} / (\text{Agreement} + \text{Disagreement}) \times 100]$ ²⁵. In this research, a total of 101 metaphors were specified, and four disagreement metaphors were found (ambiguous, virtual, poison, contagious). According to the formula, the reliability of the study is 96% $[97 / (97 + 4) \times 100 = 96\%]$. This result shows that the study achieved the desired reliability level. The generalisability of the study, theoretically, is that every research, situation or event constitutes an example of something else and is within the general specific; that is, we can generalise what we have learned in a particular situation to similar situations we encounter later²². We think that the fact that our study is related to the concept of COVID-19 and the sample group is university student athletes does not limit its generalisability. The reason for this is that the pandemic process, in general, is affecting all communities and countries in the world, either positively or negatively. In the last two stages, we indicated the metaphors together with their frequency and presented participants' own expressions, opinions and participant numbers in Table 4 in the findings section; e.g. as (K17). Finally, we interpreted the metaphors together with the opinions of the participants.

RESULTS

This section presents the types and categories of metaphors that university student athletes have stated about the concept of COVID-19.

Table 1 shows that university student athletes produced 59 metaphors for the concept of COVID-19 and expressed 101 views for it. The metaphors with the highest frequency are influenza (6), boredom (6), illness (6). Apart from these, the frequencies of the metaphors of restraint (5), inactivity (4), despair (3), death (3), loneliness (3), laziness (3) are higher than the others. We evaluated the views of the university student athletes together with their statements in the context of positive and negative metaphors. Table 2 and Table 3 shows the categories and themes by frequency and percentages.

Table 1. University Student Athletes' Metaphors for the Concept of COVID-19

Metaphor Order	Metaphor Name	f
1	Influenza	6
2	Boredom	6
3	Illness	6
4	Being restrained	5
5	Inactivity	4
6	Despair	3
7	Death	3
8	Loneliness	3
9	Laziness	3
10	Stress	2
11	Home Confinement	2
12	Prison	2
13	Devil	2
14	Cleaning	2
15	Captivity	2
16	Forbidden	2
17	Distance	2
18	Cancel	2
19	Irregularity	2
20	Breathlessness	2
21	Fast of Freedom	1
22	Asociality	1
23	Lacking	1
24	Disaster	1
25	Problem	1
26	Uncertain	1
27	Fatigue	1
28	Equality	1
29	Educational	1
30	Listening to yourself	1
31	Poison	1
32	Life Stopping	1
33	Depression	1
34	Human	1
35	Space	1
36	Lack of communication	1
37	Opportunity	1
38	Pandemic	1
39	Awareness	1
40	Contagious	1
41	Virtual	1
42	Wind	1
43	Requirement	1
44	Incautiousness	1
45	Test	1
46	Ordeal	1
47	Injury	1
48	Lie	1
49	Order	1
50	Being trapped	1
51	Limit	1
52	Money	1
53	Challenge	1
54	Loss	1
55	Numbness	1
56	Fear	1
57	Being Stuck	1
58	Bad	1
59	Night	1
60	Games	1
	TOTAL VIEW	101

Table 2. Categories and themes in the context of positive metaphors

Sub-Category	Theme	f	%	Metaphors
Awareness	Acceptance	3	2.97	Equality, Listening to yourself, Awareness
	Consciousness	6	5.94	Laziness (n=3), Breathlessness (n=2), Incautiousness,
Educational	Qualitative teaching	4	3.96	Distance (n=2), Cleanliness (n=2)
	Quantitative teaching	3	2.97	Test, Order, Educational
Motivation	Internal Motivation	3	2.97	Opportunity, Wind, Struggle
Total		19	18,81	

Positive metaphors consist of a total of three categories and a total of five themes under these categories (Table 2). In the awareness category, the themes of acceptance, (2.97%) and consciousness (5.97%); in the educational sub category the themes of qualitative teaching (3.96%), and quantitative teaching (2.97%); in the motivation sub category, the theme of internal motivation (2.97%) have emerged.

Table 3. Categories and themes in the context of negative metaphors

Category	Theme	f	%	Metaphors
Blocking	Restriction	22	21.78	Restrained (n=5), Despair (n=3), Home Confinement (n=2), Prison (n=2), Captivity (n=2), Being Stranded, Being Trapped, Limit, Tiredness, Pandemic, Obligation, Virtual, Fast of Freedom
	Deprivation of sports	10	9.90	Inactivity (n=4), Forbidden (n=2), Cancel (n=2), Injury, Lacking
	Social Isolation	13	12.87	Feeling bored (n=6), Loneliness ((n=3), Asociality, Depression, Life Stopping, Lack of Communication
Psychological Impact	Fear and anxiety	14	13.86	Illness (n=6), Stress (n=2), Fear, Night, Poison, Disaster Ordeal, Contagious
	Mourning	5	4.95	Death (n=3), Loss, Numbness
Perception	Conspiracy	8	7.92	Influenza (n=6), Game, Lie
	Chaos	8	7.92	Irregularity (n=2), Devil (n=2), Emptiness, Human, Bad, Uncertain
Economy	Finance	2	1.98	Money, Ordeal

The negative metaphors produced by university student athletes for the COVID-19 virus during the pandemic process consists of a total of four categories and eight themes gathered under it (Table 2). In the category

blocking, the theme of restraint (21.78), sports deprivation (9.90) and social isolation (12.87), in the psychological impact category the themes of fear and worry (13.86) and mourning (4.95); in the perception category the themes of conspiracy (7.92) and chaos (7.92); in the economy category the theme of finance (1.98) have emerged.

Table 4a. University Student Athletes' statements about the metaphors they produced

Sub Category	Theme	Metapors	University student athletes' statements about the metaphors they produced
Awareness	Acceptance	Laziness Awareness	Laziness; it is true that we have gotten lazy but, on the other hand, the way we perceive things have changed. (K87) Awareness; we have understood the importance of hygiene and cleanliness. (K22)
	Consciousness	Breathlessness Listening to yourself	Breathlessness; It has taught the importance of the breath. (K79) Listening to yourself; it has given me time to listen to myself, I find more time to think. (K102)
Educational	Qualitative teaching	Distance Educational	Distance; Covid19 has taught us to be distanced from everyone else. (K21) Educational; We have learned a lot, we have taken many lessons. (K39)
	Quantitative teaching	Test Cleaning	Cleaning; We are a nation who cares about cleanliness but we have also learned about hygiene. (K80) Test; The virus has taught us everything is a test. (K44)
Motivation	Internal Motivation	Opportunity Wind Challenge	Opportunity; Because I kept on training while my opponents lost motivation. (K18) Wind; Because when the wind stops the sun show up, beautiful days are ahead. (K29) Challenge; We have learned not to give up to achieve success. (K64)

Table 4b. University Student Athletes' statements about the metaphors they produced

Sub Category	Theme	Metapors	University student athletes' statements about the metaphors they produced

Negative Category	Blocking	Theme	Metapors	University student athletes' statements about the metaphors they produced
Negative Category	Blocking	Restraint	Being Restrained Despair Prison Captivity	Being restrained; Because it has restrained my freedom (K32) Despair; The virus restricted us, it shut us in our homes helplessly. (K33) Prison; Because it imprisoned us in home for months. (K85) Captivity; because we have become captives to COVID-19 and it shut us in our homes. (K73)
		Deprivation of Sports	Inactivity Injury Lacking	Inactivity; Because being locked in our houses restricted our sports facilities. (K21) Injury; Because lack of training will cause injuries (K50) Lacking; Not being able to play volleyball makes me feel incomplete. (K97)
		Social Isolation	Loneliness Asociality Depression Lack of Communication	Loneliness; Our social lives have been restricted. (K77) Asociality; We neither have a social activit nor a social life, we don't see our friends or family. We have become antisocial. (K92) Depression; We are always at home, we have become as if we are flowers in a flower pot (K10) Lack of Communication; Staying in the room at home, not being able to talk to anyone (K13)

Table 4c. University Student Athletes' statements about the metaphors they produced

Negative Category	Psychological Impact	Theme	Metapors	University student athletes' statements about the metaphors they produced
Negative Category	Psychological Impact	Fear and worry	Illness Stress Night	Illness; We can not leave the house because of the risk of contamination (K27) Stress; The thought of it permanently damaging our health has caused distress for us (K7) Night; Frightening (K93)
		Mourning	Death Loss Numbness	Death; Because it has killed many people (K81) Loss; Because we

				have lost our loved ones (K68) Numbness; Our emotions have been played with, I feel numb to everything now. (K98)
Perception	Conspiracy	Influenza Game Lie		Influenza; It made itself seem like the flu and took many lives. (K14) Game; Coronavirus is a game. (K83) Lie; It was made by humans to attack humans. (K56)
				Chaos
Economic Collapse	Finance	Money Ordeal		Money; With people going out of work, the price of everything going up, it is like the collapse of the economy. (K61) Ordeal; Because it brought many problems such as unemployment, financial problems and problems in domestic economy. (K49)

DISCUSSION

This research aims to identify the metaphors of university student athletes' regarding the concept of COVID-19 and to examine their thoughts on COVID-19. We observed that university student athletes produced a total of 59 types of metaphors for the concept of COVID-19 and expressed 101 opinions on it. The metaphors with the highest frequency are influenza, boredom, illness. Apart from these, the frequencies of the metaphors of restraint, inactivity, despair, death, loneliness, laziness are higher than the others. We analysed the research findings and collected the metaphors of university student athletes for the concept of COVID-19 under two categories as positive and negative. The first of these categories; the category of positive metaphors about COVID-19 consists of three themes which are awareness, being educational, motivation. The sub-category of being educational consists of qualitative and quantitative teaching themes. The sub-category of awareness consists of the two themes of acceptance and consciousness. Lastly, the motivation category is based on the theme of internal motivation.

The second category in question is the category of

negative metaphors about COVID-19. This category consists of the sub-categories of blocking, negative psychological impact, perception and economic collapse. The blocking category consists of the themes of restraint, sports deprivation and social isolation. The negative psychological impact category consists of the themes of mourning, fear and worry. The perception category consists of conspiracy and chaos. Lastly, the sub-category of the economy consists only of the theme of financial status.

In the relevant literature, the COVID-19 pandemic is called a global health crisis. The measures countries take against COVID-19 bring about an unprecedented economic disaster [26]. The global pandemic, COVID-19, has been addressed in many studies on the socio-economic effects of the world economy²⁷. Research reports state that almost 90% of the world is under some sort of social isolation²⁸.

As everyone, university student athletes are also concerned about various issues such as the size of the devastation in the economy during the pandemic and the speed of recovery expected after the pandemic, at what level and when the pandemic will be taken under control, how much the existing social distance & social isolation measures can be loosened and when the economic measures will go back to normal. In this period of continuing uncertainty, it is extremely difficult to predict what will happen to university student athletes in the future, this situation is reflected in the research through negative metaphors.

Negative metaphors produced by university student athletes clearly show the reflection of the pandemic process in sports environments. Some of the negative metaphors can be explained by the context of "being blocked". Because in many countries, restrictions have been imposed in various areas regarding the pandemic process, and individual or state-sponsored social isolation policies have been put into action. Of course, this situation, caused many university student athletes to be partially or completely deprived of sports.

Another negative metaphor produced by university student athletes points to the psychological impacts of COVID-19. It is stated that psychological stress and depression are among the most basic psychological reactions during the COVID-19^{28,29}. Research findings suggest that metaphors produced by university student athletes trigger anxiety and fear due to stress and depression. The main reason for this is that the COVID-19 emergency, suspends time and our future plans, causing uncertainty in general²⁸.

In the literature Furedi and Yıldırım³⁰ define fear as a mechanism that enables the human mind to concentrate on the object of fear when faced with unexpected and unforeseen situations. It is a human reflex to feel fear, anxiety when faced with a sudden positive or negative unexpected change in one's lives or habits. Due to this anxiety and fear that arises, it is extremely important to explain to university student athletes what is happening during the process, help predict what will happen in the future.

In addition, fear and anxiety are moving from an individual level to a social level due to the pandemic diseases that cause a high loss of life in today's modern society and a new disease is encountered every year.

Bauman's³¹ description of the 'other' indicates that the basis of all fears and their collective representation is associated with 'uncertainty', this statement is closely related to the source of anxiety and fear created by pandemic diseases in individuals and at the social level. The loss of lives in the process leads to university student athletes who have lost many relatives to mourn. The quality of life of individuals who have lost a relative is negatively affected and they have both mental and physical problems³².

Another issue that arises within the scope of the research findings is the perception of chaos and conspiracy regarding the COVID-19 process. It would be best to closely monitor the evolution of the pandemic and to keep the communication and solidarity channels open to university student athletes' conspiracy-chaos perception scenarios that may lead to chaos in public.

In addition to all these negative metaphors, research findings show that university student athletes refer to the COVID-19 process with metaphors related to awareness, being educational and motivational. The relevant literature suggests that university student athletes who have positive metaphors about COVID-19 have a high level of awareness and this acts as a protective shield. A study in which the awareness of the individuals are determined found that after COVID-19 pandemic, individuals' behaviours involving protective measures such as cleaning, hygiene, wearing masks and gloves increased by an average of 85-90%; while some of their behaviour such as being in crowded places, such as using public transportation has decreased by an average of 95%. The same study concluded that 59.1% of the participants stated that their desire to use social media increased, 75.8% stated that their desire to follow the news increased³³. Zhou et al.³⁴ found that awareness of COVID-19 is a protective factor against depression and anxiety symptoms, as a result of their study examining the relationship between the awareness of COVID-19 and mental health. The same study found that there is a negative correlation between COVID-19 awareness and psychological problems.

CONCLUSION

As a result; in the context of pandemic and sports COVID-19 presents some preliminary observations on sports and being involved in sports is progressing in these uncertain times. We have discussed these preliminary observations in a positive and negative context, it can be said that COVID-19 awareness is educational and motivational and it acts as a buffer between being adversely affected by the process. In addition, we recommended to necessary measures in this regard considering the negative perceptions of university student athletes related to COVID-19.

Conflicts of Interest: The authors declare no conflict of interest.

REFERENCES

1. Ignatowicz A, Atherton H, Bernstein CJ, et al. Internet video conferencing for patient-clinician consultations in long-term conditions: a review of reviews and applications in line with guidelines and recommendations. *Digit Health*. 2019; (5):1-7. <https://doi.org/10.1177/2055207619845831>
2. Priya S. Singapore Government Launches COVID-19 Chatbot. 2020; Available at: <https://www.opengovasia.com/singapore-government/launches-covid-19-chatbot/>. Accessed Marc 24.
3. He F, Deng Y, Li W. Corona virus disease 2019 (COVID-19): What we know? *Journal of Medical Virology*. 2020; (2):1-7. <https://doi.org/10.1002/jmv.25766>
4. Chen P, Mao L, Nassis GP, Harmer P, Ainsworth BE, Li F. Coronavirus disease (COVID-19): The need to maintain regular physical activity while taking precautions. *J Sport Health Sci*. 2020; 9 (2): 103-4. <http://doi.org/10.1016/j.jshs.2020.02.001>
5. Elovainio M, Hakulinen C, Pulkki-Råback L, Virtanen M, Josefsson K, Jokela M, et al. Contribution of risk factors to excess mortality in isolated and lonely individuals: an analysis of data from the UK Biobank cohort study. *Lancet Public Health*. 2017; 2(6): e260-6. [https://doi.org/10.1016/S2468-2667\(17\)30075-0](https://doi.org/10.1016/S2468-2667(17)30075-0)
6. Acar, K, Mor, A, Baynaz, K, Arslanoglu, E. An Investigation on Anxiety States of Students in Faculty of Sport Sciences During COVID-19. *International Journal of Disabilities Sports and Health Sciences*. 2020; 3 (1), 66-73. <http://doi.org/10.33438/ijds.736875>
7. Namlı, S. What Level of Concerns About Corona Virus (Covid-19)? A Study on Athletes. Ozgur Karatas (Ed.), *Theory and Research in Sport Sciences II*. 2020; s.137-150. Ankara: Gece Academia.
8. Kim, J. H., Levine, B. D., Phelan, D., Emery, M. S., Martinez, M. W., Chung, E. H., ... & Baggish, A. L. Coronavirus disease 2019 and the athletic heart: emerging perspectives on pathology, risks, and return to play. *JAMA cardiology*. 2020; 5 (10), 1085-1086. <http://doi.org/10.1001/jamacardio.2020.5890>
9. Yeo, T.J. Sport and exercise during and beyond the COVID-19 pandemic. *Eur J Prev Cardiol*. 2020; 27 (12): 1239-1241. <https://doi.org/10.1177/2047487320933260>
10. Okazaki K, Suzuki K, Sakamoto Y, Sasaki K. Physical activity and sedentary behaviour among children and adolescents living in an area affected by the 2011 Great East Japan Earthquake and Tsunami for 3 years. *Prev Med Rep*. 2015; 2:720-4. <https://doi.org/10.1016/j.pmedr.2015.08.010>
11. Yıldırım, A. ve Simsek, H. *Qualitative research methods in the social sciences*. 10th Edition. Ankara: Seckin Publishing. 2016; 47, 242-246, 272.
12. Patton, M. Q. *Qualitative research and evaluating methods: Integrating theory and practice* (4th ed.). 2015; Sage.
13. Ugur, O.A., Yenel, F. A. Research on classroom management approaches of physical education teachers and the problems they face. *The Journal of Turkish Social Research*. 2007; 11(1), 149-173.
14. Kurtipek, S., Celik, O. B., Yılmaz, B. ve Yenel, İ. F. Determination of the thoughts of national team athletes on the concept of doping: a study of metaphor, *Nigde University Journal Of Physical Education And Sport Sciences*. 2016; 10(2), 318-327.
15. Kurtipek, S., Celik, O. B., Gumus, H., ve Yılmaz, B. Metaphorical perceptions of camp leaders working under the ministry of youth and sports on the concept of youth. *Ovidius University Annals, Series Physical Education and Sport/Science, Movement and Health*. 2017; 17(2), 359-368. <https://www.analefefs.ro/anale-fefs/2017/i2s/pe-autori/KURTIPEK%20Serkan.pdf>
16. Kaya, O., Ciccoglu, H. İ. ve Demir, G. T. The attitudes of university students towards sports: attitude and metaphorical perception. *European Journal of Physical Education and Sport Science*. 2018; 5(1), 115-133. <http://dx.doi.org/10.46827/ejpe.v0i0.2113>
17. Kurtipek, S. ve Gungor, N. B. Determination of the perceptions of sport managers on the concept

- oforganization: a metaphor analysis study. *Journal Of Education and Training Studies*. 2019; 7(2), 57-63. <https://doi.org/10.11114/jets.v7i2.3934>
18. Dursun M., Arı C., Adas SK., Ulun C. Metaphoric Perceptions of Individuals Working in Sports Organizations about Leader Concept. Oktay Kızar (Ed.), In *Research Articles in Sport Sciences*. 2019; s.199-214. Ankara: Gece Academia.
 19. Kurtipek, S. A Metaphor of Trainers: Sports. Ozgur Karatas (Ed.), *Theory and Research in Sport Sciences II*. 2020; s.151- 164. Ankara: Gece Academia.
 20. Adas SD., Dursun M., Arı C., Ulun C. Metaphoric Perceptions of Personnel Working in Sports Organizations Regarding the Concept of Manager. Oktay Kızar (Ed.), In *Research Articles in Sport Sciences*. 2020; s.179-197. Ankara: Gece Academia.
 21. Kozak M., Bayrakdar A., Karaman M., Zorba E. Determination of the perceptions of individuals engaged in regular physical activity on the concept of wellness: A metaphor analysis study. *African Educational Research Journal*. 2020; 8 (1), s. 43-48. <https://doi.org/10.30918/AERJ.8S1.20.006>
 22. Merriam, S. B. *Introduction to qualitative research. Qualitative research in practice: Examples for discussion and analysis*. 2002; 1(1), 1-17.
 23. Creswell, J.W. *Qualitative inquiry and research design: Choosing among five traditions* (2nd ed.). Thousand Oaks. 2007; CA: Sage.
 24. Creswell, J. W., & Poth, C. N. *Qualitative inquiry and research design: Choosing among five approaches*. 2016; Sage publications
 25. Miles, M. B., Huberman, A. M. *Qualitative data analysis: Anexpanded sourcebook*, 1994.
 26. Hart, O. E., & Halden, R. U. Computational analysis of SARS-CoV-2/COVID-19 surveillance by wastewater-based epidemiology locally and globally: Feasibility, economy, opportunities and challenges. *Science of the Total Environment*. 2020; 730, 138875. <https://doi.org/10.1016/j.scitotenv.2020.138875>
 27. Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., ... & Agha, R. The socio-economic implications of the coronavirus and COVID-19 pandemic: a review. *International journal of surgery*. 2020; 78, 185-193. <https://doi.org/10.1016/j.ijssu.2020.04.018>
 28. Atalan, A. Is the lockdown important to prevent the COVID-19 pandemic? Effects on psychology, environment and economy-perspective. *Annals of medicine and surgery*. 2020; 56, 38-42. <https://doi.org/10.1016/j.amsu.2020.06.010>
 29. Senisik, S., Denerel, N., Koyagasioglu, O., & Tunc, S. The effect of isolation on athletes' mental health during the COVID-19 pandemic. *The Physician and Sportsmedicine*. 2020; 1-7.
 30. Furedi, F., ve Yıldırım, B. *The culture of fear: The risks of not taking risks*. Ayrıntı Publishing, 2001.
 31. Bauman, Zygmunt. *Modernity and ambiguity*, trans. Ismail Turkmen, Istanbul: Ayrıntı Publishing, 2003.
 32. Ott, C.H. "The impact of complicated gried on mental and physical health at various points in the bereavement process. *Death Studies*. 2003; 27:249-72. <https://doi.org/10.1080/07481180302887>
 33. Karatas, Z. Social impacts, change and empowerment of the COVID-19 pandemic. *Turkish Journal of Social Work Research*. 2020; 4(1), 3-15.
 34. Zhou, S. J., Zhang, L. G., Wang, L. L., Guo, Z. C., Wang, J. Q., Chen, J. C., ... & Chen, J. X. Prevalence and socio-demographic correlates of psychological health problems in Chinese adolescents during the outbreak of COVID-19. *European Child & Adolescent Psychiatry*. 2020; 1-10. <https://doi.org/10.1007/s00787-020-01541-4>