

COVID-19 pandemic, family climate, and social media addiction among pharmacy faculty students

Melis Seray Ozden-Yıldırım ^a 1, Istanbul Kultur University, Istanbul, 34158, Turkey

Suggested Citation:

Ozden-Yıldırım, M. S. (2022). Coronavirus disease 2019 and its pervasive anxiety in the world. International Journal of Emerging Trends in Health Sciences 6(1), 32-43. <https://doi.org/10.18844/ijeths.v6i1.7640>

Received from December 30, 2021; revised from February 02, 2022; accepted from April 19, 2022.

Selection and peer review under responsibility of Prof. Dr. Nilgun Sarp, Uskudar University, İstanbul.

©2022 BirlesikDunyaYenilikArastirmaveYayincilikMerkezi. All rights reserved.

Abstract

The COVID-19 pandemic led to social isolation. This resulted in the use of the internet in connection with the outside world. This poses a risk for social media addiction, both now and in the future. This study aims to investigate the relationship between social media addiction and family climate in the shade of the COVID-19 pandemic. Besides, social media addiction was studied according to demographical features as the subgoals of the study. The research was conducted on 364 university students from the pharmacy faculty. Data were collected with a questionnaire, based on Demographical Information Form, Social Media Addiction Scale, and Family Climate Scale. The results showed that there were negative correlations between social media addiction and the cognitive cohesion subdimension of family climate. Only cognitive cohesion predicted social media addiction significantly. As a result of the study, the family relationships of the students were also examined within the scope of the pandemic period and their relationship with social media addiction was emphasized.

Keywords: Addiction; Covid-19; family; Pandemic; social media.

* ADDRESS FOR CORRESPONDENCE: Melis Seray Ozden-Yıldırım, Istanbul Kultur University, Istanbul, 34158, Turkey
E-mail address: m.ozden@iku.edu.tr

1. Introduction

Pandemics that cause millions of people to die and affect society negatively have been seen many times throughout history. Nowadays the world is struggling with a pandemic called COVID-19, which started in China and reached the whole world. We continue to live in restricted living spaces during this social isolation period. And as a part of the new normal, our homes became the new working and education areas (Oktay, 2020). It is an inevitable fact that people spend much more time on social media at home during the pandemic period. Social media is a limitless source of entertainment, information, and connection. It is also helpful for maintaining communication with friends and family to reduce isolation and boredom which have been associated with anxiety and long-term distress (Brooks, Webster, Smith, Woodland, Wessely, & Greenberg, 2020).

In the current COVID-19 pandemic, social media has the potential, if responsibly and appropriately used, to provide rapid and effective information (Inna, Nosenko, Kutovyy & Arshava, 2020; Sakakini, 2022). But on the other hand, in many studies, it has been indicated that during the pandemic period, the time spent on social media in normal time has doubled. This situation poses a risk for social media addiction in the future.

The pandemic is ongoing so the social and economic impacts seem to take a longer time. Social media can play a positive role during the COVID-19 pandemic by promoting effective strategies for helping individuals deal with social and physical distancing (Hussain, 2020; Tezer, 2020). Social media is also important in terms of providing safe communication between family members and friends by maintaining social distance. Nowadays interpersonal relationship in a family is more important than it is. Although people can continue their social relations through the internet and social media, it is obvious that it cannot be as healthy and high quality as social relations established by face.

1.1. Related Studies

Studies focusing on the relationship between family and health repeatedly confirm that family structures and health are linked (Herke, Knöchelmann & Richter, 2020). Related to the statistics about the impact of the pandemic on family well-being upward of one-third of families have reported feeling either very or extremely anxious about family stress resulting from COVID-19-related confinement (Statistics Canada, 2020). Pursuing communication is also important in terms of protecting human mental health, especially during a period of social isolation.

The family climate is based on family relationships, which also influence the mental and physical health of family members (Bookwala, Jacobs, Age, & 2004). It includes several factors such as the quality of relationships among family members and social interactions within the family, and intergenerational transmission of family values and skills (van Steijn et al., 2015; Miah et al., 2021). The family climate is fundamental to the family functioning and the quality of this function. It significantly affects the functionality of the family.

A harmonious family climate shapes the family positively, both behaviorally and socially. In a harmonious family climate, family members are more concerned with each other and more sensitive to each other's needs. It has an important effect on shaping the attitudes and behaviors of individuals in positive or negative situations they encounter in life and their social relationships (Kaplan, 2019). During the COVID-19 pandemic that has been going on for more than a year, the period of staying at home has also affected family relationships.

1.2. Purpose of study

During this period, the internet became an important tool for people to communicate with the outside World. In particular, the use of social media has increased significantly during this period. Thus, the main purpose of this study is to investigate the relationship between social media addiction and family climate in the shade of the COVID-19 pandemic. Besides, social media addiction was studied according to demographical features as the subgoals of the study. Based on the main purpose, this study poses the main hypothesis stated below:

H1: There is a correlation between social media addiction and family climate during the COVID-19 pandemic.

By the way, this study also examined the following problem statements depending on this main hypothesis:

- Do the factors of family climate predict social media addiction?
- Is there a difference between the social media addiction levels of university students according to gender?
- Is there a difference between the social media addiction level of university students according to their study program?
- Is there a difference between social media addiction levels of university students according to living with family or away from family?
- Is there a difference between the social media addiction level of university students according to the marital status of the family?
- Is there a difference between the social media addiction levels of university students according to sibling status?
- Is there a difference between the social media addiction level of university students according to their marital status?
- Is there a difference between the social media addiction levels of university students according to their occupational status?
- Is there a difference between the social media addiction levels of university students according to their parents living in or out of Istanbul?

2. Materials and Methods

2.1. Participants

The research group consists of 364 students who studied at the faculty of pharmacy, including 300 females and 64 males in the range of 18-24 ages (mean 20.80; sd 1.360). The descriptive statistics about the participants were given in Table 1.

Table 1
Descriptive statistics of participants

Demographical Info		n	%
Study program	domestic	302	83
	International	62	17
Education level	1	102	28

	2	108	29.7
	3	141	38.7
	4	13	3.6
Living with	with family	185	50.8
	away from family	179	49.2
Living in	Istanbul	164	45.1
	other cities	200	54.9
Sibling status	single / one sibling	131	36
	more than one sibling	233	64
Marital status of the parents	married	321	88.2
	divorced/widowed	43	11.8
Occupational status	working	50	13.7
	non-working	314	86.3
Marital status	single	307	84.3
	romantic relationship/married	57	15.7
Level of income	low	52	14.3
	medium	288	79.1
	high	24	6.6
Total		364	100

2.2. Data collection tools

Demographical Information Form, Social Media Addiction Scale, and Family Climate Scale were used for collecting data from the participants.

2.2.1. Demographical Information Form (DIF)

Demographical Information Form was developed by researchers and it was used to get information about gender, age, education level, and other detailed information about the participants.

2.2.2. Social Media Addiction Scale (SMAS-AF)

Social Media Addiction Scale consists of 20 items that can be gathered under 2 subscales (virtual tolerance and virtual communication) in which self-evaluation of participants is intended, is a sample of a 5-point Likert scale. The scale was developed by Sahin and Yagci (2017). The scale was evaluated by overall score. The Cronbach's Alpha internal consistency coefficient of the whole scale is .94. For the subscales the Cronbach's Alpha internal consistency coefficient for the virtual tolerance is .92 and virtual communication is .91. For this study the Cronbach's Alpha internal consistency coefficient of the whole scale is .89, for the subscales, it is .82 for the virtual tolerance and .90 for the virtual communication.

2.2.3. Family Climate Scale (FCS)

Family Climate Scale was developed by Björnberg and Nicholson (2007) and it was translated into Turkish by Gonul, Isik-Bas, and Sahin-Acar (2018). It is a 5-point Likert scale consisting of 34 items and 3

subscales (relatedness in family, intergenerational authority, cognitive cohesion). The Cronbach's Alpha internal consistency coefficient of the subscale called relatedness in a family is .95, intergenerational authority is .87 and cognitive cohesion is .87. For this study Cronbach's Alpha internal consistency coefficient is .79, .80, and .82 respectively.

3. Results

The analysis of data was performed on SPSS version 23.0 packaged software. Pearson Correlation, Independent Samples t-Test, One Way ANOVA, and Simple Linear Regression were used in the analysis of data. For all these analyses, the results for $p < .05$ were deemed statistically significant.

Table 2 shows the means and standard deviations of factors of social media addiction and family climate.

Table 2
Descriptive statistics of dependent and independent variables (n = 364)

	min	max	x	ss
Social Media Addiction				
Virtual tolerance	11	55	32.3	7.702
Virtual communication	9	45	23.15	6.188
Social media addiction total	21	100	55.45	12.548
Family Climate				
Relatedness in family	32	105	83.09	13.87
Intergenerational authority	8	34	21.07	4.7
Cognitive cohesion	6	30	19.63	4.546

The correlation between social media addiction and its factors and factors of family climate was analyzed with Pearson Correlation. There were significant negative correlations found between virtual tolerance and cognitive cohesion ($r = -.171, p < .01$), social media addiction, and cognitive cohesion ($r = -.155, p < .01$), (see Table 3).

Table 3
Pearson correlation analysis between social media addiction and family climate

Variables	1	2	3	4	5	6
Social Media Addiction						
1. Virtual tolerance	1					
2. Virtual communication	.628**	1				
3. Social media addiction total	.923**	.878**	1			
Family Climate						
4. Relatedness in family	-.077	-.083	-.088	1		
5. Intergenerational authority	.082	.046	.073	-.098	1	
6. Cognitive cohesion	-.171**	-.103	-.155**	.619**	-.022	1

** $p < .01$ * $p < .05$

According to the results of the simple linear regression analysis, summarized in Table 4, only one factor of family climate named cognitive cohesion ($\beta = -.16, p < .005$) predicted social media addiction significantly, but its predictive role is very low.

Table 4
The simple linear regression analysis of the predictive role of cognitive cohesion on social media addiction

Model	B	SE _B	β	t	p
-------	---	-----------------	---------	---	---

Constant	63.862	2.887	22.117	.000
Cognitive cohesion				

Dependent Variable: Social Media Addiction. $R^2 = .024$, adjusted $R^2 = .021$ ($p < .005$)

There was no significant difference between social media addiction level of university students according to gender ($t(362)=1.27$; $p>.05$), according to study programme ($t(362)=.19$; $p>.05$), according to living with family or away from family ($t(362)=-1.57$; $p>.05$), according to marital status of the family ($t(362)=1.04$; $p>.05$), according to sibling status ($t(362)=1.11$; $p>.05$), according to marital status of the participants ($t(362)=-.64$; $p>.05$), according to occupational status ($t(362)=-.54$; $p>.05$).

There was a significant difference only between the social media addiction of university students whose parents were living in Istanbul and whose parents were living out of Istanbul ($t(362) = -1.99$; $p < .05$). The results showed that social media addiction of university students whose parents were living out of Istanbul ($\bar{x} = 56.63$) was higher than university students whose parents were living in Istanbul ($\bar{x} = 54.01$) (see Table 5).

Table 5

Independent sample t-test analysis of social media addiction according to living in or out of Istanbul

	Parents Living	N	\bar{x}	SS	Sh \bar{x}	t Test		
						t	Sd	p
Social Media Addiction	In Istanbul	164	54.01	12.77	.997	-1.991	362	.047
	Out of Istanbul	200	56.63	12.27	.868			

$p < .05$

Finally, one way ANOVA analysis was performed to consider the variance analysis in-between age ($F_{(6,357)} = .97$, $p > .05$), level of education ($F_{(360,3)} = .010$, $p > .05$), level of income ($F_{(361,2)} = .95$, $p > .05$) and level of social media addiction, but statistically significant difference couldn't be found.

The participants of the study were asked about how they spent their time at home during the pandemic. The findings indicated that the top three activities at home were studying either course or homework (% 25.3), watching television, movies, and series (%17.1), and reading books (%15.2) (see Table 6).

Table 6

Frequencies of spending time at home during the pandemic

How do you spend your time at home during the pandemic?	n	%
Studying courses, homework	92	25.3
Watching television, movies, and series	62	17.1
Reading book	55	15.2
Social media	39	10.7
Hobbies, music, art	24	6.6
Cooking	17	4.7
Sleeping and taking a rest	17	4.7
Housework	15	4.1
With family	14	3.8
Sport	11	3
Nothing	8	2.2
Learning foreign language	3	0.8
Worship	3	0.8

With friends	2	0.5
Garden works	2	0.5

The participants of the study were asked about frequently used social media accounts at normal times. The findings indicated that the top three social media accounts were Instagram (%61), WhatsApp (%50), and Twitter (%12.9) (see Table 7).

Table 7

Frequencies about frequently used social media account at normal times

Frequently used social media accounts	n	%
Instagram	222	61
WhatsApp	50	13.7
Twitter	47	12.9
YouTube	24	6.6
None	15	4.1
Facebook	5	1.4
Snapchat	1	0.3

The participants of the study were asked about their sharings on social media at normal times. The findings indicated that the top three sharings were photographs (%28), stories (%9.1), and retweets (%6.6). %27.2 of the users didn't share anything (see Table 8).

Table 8

Frequencies of sharing on social media at normal times

Sharing on social media at normal times	n	%
Photographs	102	28
Nothing	99	27.2
Story	33	9.1
Retweets	24	6.6
Selfy	24	6.6
Nature photographs	23	6.3
Current events, news	12	3.3
Ideas	9	2.5
Contents about lectures	7	1.9
Music, art	6	1.6
Places I visited	5	1.4
Religious contents	4	1.1
Things related to my hobbies	4	1.1
Posts about environmental awareness	3	0.8
Books, films	3	0.8
Political contents	2	0.5
Video	2	0.5

%78.8 of the using ratios about social media accounts during the pandemic increased and %21.2 decreased (see Table 9).

Table 9

Frequencies of using social media accounts during the pandemic

Using ratios about social media accounts during the pandemic	n	%
Increased	287	78.8
Decreased	77	21.2
Total	364	100

The participants of the study were asked about their sharings on social media during the pandemic. The findings indicated that the top three sharings were personal photographs (%14.8), retweets (%8.5), and info about Covid-19 (%8). %45.3 of the users didn't share anything during the pandemic (see Table 10).

Table 10

Frequencies of sharing on social media during the pandemic

Sharing on social media during the pandemic	n	%
Nothing	165	45.3
Personal photographs	54	14.8
Retweets	31	8.5
Info about Covid-19	29	8
Personal ideas	14	3.8
Nature photographs	14	3.8
Story	12	3.3
Music	11	3
Handwork activities	7	1.9
Gastronomic contents	7	1.9
Video	7	1.9
Religious contents	6	1.6
Books	5	1.4
Humour	2	0.5

The participants of the study were asked about their family relationships during the pandemic. %42 of the sample group stated that nothing changed, %19.2 of the sample group stated that their relationship was affected positively and %14.3 stated that their relationship was affected negatively. %4.7 of the participants said that they got to know each other better, they became closer and their family bonds became stronger. %4.7 stated that their communication level with their family increased, and they had more conversations during this period. %4.4 of the sample group said that they got bored. % 3 of the participants were away from their families during this period. %2.5 stated that arguments between family members increased, there were no private areas at home and there was uneasiness at home. %2.2 were affected both positively and negatively. %1.9 said that the tolerance between family members decreased and there was a burst of rage. And just %1.1 stated that fights with his sibling have increased (see Table 11).

Table 11

Frequencies of family relationships during the pandemic

Family relationships during the pandemic	n	%
Nothing changed	153	42
Affected positively	70	19.2
Affected negatively	52	14.3
We got to know each other better, we became closer, family bonds became stronger	17	4.7

Communication with my family increased, we had more conversation	17	4.7
Get bored	16	4.4
I'm away from my family	11	3
Arguments between family members increased, and there was no private areas at home, there was uneasiness at home	9	2.5
Affected both positively and negatively	8	2.2
Tolerance decreased, and there was a burst of rage	7	1.9
Fights with my sibling have increased	4	1.1

4. Discussion

Current studies focusing on the COVID-19 pandemic indicated that intolerance of uncertainty about the course of the situation and psychological health are related to each other (Alizadeh, Fard, & Alipour, 2020; Satici, Saricalli, Satici & Griffiths, 2020). In the process of social isolation, people began to use the internet both for obtaining information about the pandemic and for continuing their business and social lives on social media. This causes people to spend a long time on the internet and thus also paves the way for an addiction process, especially in terms of social media, which is used extensively. In crises such as the COVID -19 pandemic, societies use technology much more actively to reduce stress and anxiety about the period.

While technology enables people to work from home or to continue their education from home it has been the main important tool for socializing during this process. But on the other hand, while technology provides the entertainment needed, unconscious individuals are at risk of developing problematic usage of the internet (Goker & Turan, 2020). And also in another study, there was a positively high correlation between mental health problems and social media use during the COVID -19 outbreak (Gao, Zheng, Jia, et. al.). There are many studies examining the use of social media in terms of interpersonal relationships but this study, it was aimed to examine the pandemic process in terms of social media use and family relations.

In this study, the participants were asked both about their social media use during normal time and their social media use during the pandemic period. The findings indicated that the top three social media accounts at normal times were Instagram, WhatsApp, and Twitter. And the findings indicated that the top three sharings at normal times were photographs, stories, and retweets. According to the findings, it was found the use ratio of social media accounts during the pandemic period increased significantly. This finding is in line with other research indicating that the curfew restrictions and social isolations increased the consumption of digital entertainment such as online games. Based on these studies there was approximately a 70% increase in online games and other online activities (Shanley, 2020; Daniele, & Niclas, 2020).

Also, the participants of the study were asked about their family relationships during the pandemic. 42% of the sample group stated that nothing changed, 19.2% of the sample group stated that their relationship was affected positively and 14.3% stated that their relationship was affected negatively. Other answers about their situations were spread out such as they got to know each other better, they became closer and their family bonds became stronger, communication level with their family increased, and they had more conversations during this period. On the other hand, some participants declared that they got bored of staying at home. And the participants, who didn't have private personal areas at home, expressed that the arguments between family members increased, there was uneasiness at home, the tolerance between family members decreased and there were bursts of rage. These findings coincide with the

findings of a study conducted on family problems during the pandemic period (Sacramento, Ibanez, & Magayon, 2021).

Compared to the pre-pandemic period, the problems that have increased the most among the problems experienced in the family are discussions about domestic responsibilities, arguments between family members, and discussions about the home economy. On the other hand, the fact that family members spend more time together compared to the pre-pandemic process has increased communication and joint activities among family members living together. In addition, there is a statistically significant difference between family problems such as psychological, economic, and physical violence, variables such as gender, family type, degree of importance given to the family, family relations, and communication (Baris & Taylan, 2020).

First, as hypothesized, there are negative correlations found between social media addiction and the cognitive cohesion subdimension of family climate. And in addition to that cognitive cohesion is negatively related to the virtual tolerance subdimension of social media addiction. Only one factor of family climate named cognitive cohesion predicts social media addiction significantly, but its predictive role is very low. Emotional cohesion as opposed to cognitive cohesion includes situations such as love, warmth, and belonging to a family as the strongest source. On the other hand, cognitive cohesion is the overlap of values, perspectives, and attitudes. When family members perceive their families as both emotionally and cognitively compatible, it would indicate an ideal situation for the functioning of the family but it is not always necessary. For an individual who sees the family as a functional system rather than a source of emotional support, low emotional cohesion and high cognitive cohesion may be more functional (Gonul, Isik-Bas, & Sahin-Acar, 2018).

In another study, it was found that the players who had low perceived social support and who didn't have a positive family climate were highly addicted to online games (Yilmaz, 2020). It was also supported by the results showing that the social media addiction of university students whose parents were living out of Istanbul was higher than university students whose parents were living in Istanbul. In addition to that, there was no difference found between social media addiction levels of university students according to other demographical features. This suggests that the feeling of loneliness caused by being away from social support has an increasing effect on internet addiction.

5. Conclusion

The psychological effects of the pandemic period were also observed in the relationship of family members who spend a long time in the same house due to social isolation. As a result of the study, the students of the faculty of pharmacy were asked how they spent their time at home during the pandemic period. The findings indicated that the top three activities at home were respectively studying either course or homework, watching television, movies, and series, and reading books. And also, when they were asked about their sharings on social media accounts during the pandemic, the findings indicated that the top three sharings were respectively personal photographs, retweets, and information about COVID -19.

In conclusion, the results of this study demonstrated that especially the pandemic process caused an increase in internet use. However, social media addiction has also increased. The findings of the study are important in terms of dealing with family relations during the pandemic period. Therefore, there is limited research about the psychological effects of the COVID -19 pandemic, so the current findings of the research provide contributions to the literature by studying its effects both in terms of social media addiction and family relations.

References

- Alizadeh Fard, S., Alipour, A. (2020). The Path Analysis Model in Prediction of Corona Phobia Based on Intolerance of Uncertainty and Health Anxiety. *Journal of Research in Psychological Health*, 14(1),16-17. https://rph.khu.ac.ir/browse.php?a_id=3756&sid=1&slc_lang=en&ftxt=1
- Baris, I., Taylan, H.H. (2020). Kuresel Salgin Surecinde Turkiye’de Aile Ici Sorunlar. Nosyon: Uluslararası Toplum ve Kultur Calismalari Dergisi – Nosyon: *International Journal of Society and Culture Studies*, Gursoy Akca Ozel Sayisi, 5, 13-32. <https://dergipark.org.tr/en/pub/nosyon/issue/59339/809163>
- Björnberg, A., Nicholson, N. (2007). The Family Climate Scales Development of a New Measure for Use in Family Business Research. *Family Business Review*, 20(3), 1-16. <https://journals.sagepub.com/doi/abs/10.1111/j.1741-6248.2007.00098.x>
- Bookwala, J., Jacobs, J. (2004). Age, Marital Processes, and Depressed Affect. *The Gerontologist*, 44(3), 328–338. <https://academic.oup.com/gerontologist/article-abstract/44/3/328/699464>
- Brooks, S.K., Webster, R.K., Smith, L.E., Woodland, L., Wessely, S., Greenburg, N., Rubin, G.J. (2020). The Psychological Impact of Quarantine and How To Reduce It: Rapid Review of The Evidence. *The Lancet*, 395, 912-20. [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(20\)30460-8.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(20)30460-8.pdf)
- Daniele, L., Niclas, R. (2020). Fortnite Gamers Stuck at Home Strain Italy’s Network [Internet]. Bloomberg. 2020 [cited 2020 J26]. Available from: <https://www.bloomberg.com/news/articles/2020-03-12/housebound-italian-kids-strain-network-with-fortnite-marathon>.
- Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., Wang, Y., Fu, H., Dai, J. (2020). Mental Health Problems and Social Media Exposure During Covid-19 Outbreak. *PLoS ONE*, 15(4), 1-10. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0231924>
- Goker, M.E., Turan, S. (2020). COVID-19 Pandemisi Surecinde Problemlili Teknoloji Kullanimi. *ESTUDAM Halk Sagligi Dergisi*, 5(COVID-19 Ozel Sayisi), 108-114. <https://dergipark.org.tr/en/pub/estudamhsd/article/767526>
- Gonul, B., Isik-Bas, H., Sahin-Acar, B. (2018). Aile Iklimi Olcegi’nin Turkceye Uyarlanmasi ve Psikometrik Acidan Incelenmesi. *Turk Psikolojik Danisma ve Rehberlik Dergisi*, 8(50), 165-200.
- Herke, M., Knöchelmann, A., Richter, M. (2020). Health and Well-Being of Adolescents in Different Family Structures in Germany and The Importance of Family Climate. *International Journal of Environmental Research and Public Health*, 17(18), 6470. <https://www.mdpi.com/1660-4601/17/18/6470>.
- Hussain, W. (2020). Role of social media in COVID-19 Pandemic. *International Journal of Frontier Sciences*: 4(2), 59-60. <https://vlibrary.emro.who.int/?goto=Q04jBjQNRBtEPjNfCxJARQYeNjhVTj4UTkUfUBISCOYwehIWPCkgAWp dCOgGbzM9HQRNixU7WRZoGSA5VF9oHBsXY1t1Gl4NCHhzHgcRh8fFT4>
- Inna, A., Nosenko, E., Kutovyy, K., & Arshava, I. (2020). An integrated approach to assessing students’ emotional stability under the COVID-19 pandemic. *New Trends and Issues Proceedings on Humanities and Social Sciences*, 7(3), 184–191. <https://doi.org/10.18844/prosoc.v7i3.5251>
- Kaplan, M. (2019). Üniversite öğrencilerinin algıladıkları aile iklimi, kuşaklararası ilişkiler ve aile uyumunun değerlendirilmesi. Çukurova Üniversitesi Tıp Fakültesi Aile Hekimliği Anabilim Dalı Uzmanlık Tezi.
- Miah, M. R., Rahman, A. A. M. S., Sayok, A. K., Samdany, A. A., & Hannan, M. A. (2021). How to fight the COVID-19 global crisis. *World Journal of Environmental Research*, 11(2), 31–38. <https://doi.org/10.18844/wjer.v11i2.5855>
- Oktay, F. (2020). Pandemi Doneminde Sosyal Medya Kullanimi. *ECLSS International Online Conference Economics & Social Sciences Proceedings Book*, September 8-9, 2020, Kyrenia, TRNC, 82-88. https://www.academia.edu/download/64876056/Proceedings_Book_ECLSS_CSU_2020_Final.pdf#page=98

- Ozden-Yıldırım, M. S. (2022). Coronavirus disease 2019 and its pervasive anxiety in the world. *International Journal of Emerging Trends in Health Sciences* 6(1), 32-43. <https://doi.org/10.18844/ijeths.v6i1.7640>
- Sacramento, M., Ibanezr, G., & Magayon, V. C. (2021). Technology adaptation of teachers and students under the learning continuity plan: A case of one school in the Philippines. *International Journal of Learning and Teaching*, 13(4), 204–223. <https://doi.org/10.18844/ijlt.v13i4.5594>
- Sahin, C., Yagci, M. (2017). Sosyal Medya Bagimliliği Olcegi – Yetiskin Formu: Gecerlilik ve Guvenirlik Calismasi. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 18(1), 523-538. Retrieved from <https://dergipark.org.tr/en/pub/kefad/issue/59268/851452>
- Sakakini, A. (2022). The Impact of the COVID-19 Pandemic, the Financial Crisis and August 4 Explosion on the Reading Habits of the Lebanese People. *International Journal of New Trends in Social Sciences*, 6(1), 45–52. <https://doi.org/10.18844/ijss.v6i1.6574>
- Satici, B., Saricali, M., Satici, S. A., Griffiths, M. D. (2020). Intolerance of uncertainty and mental wellbeing: serial mediation by rumination and fear of COVID-19. *International Journal of Mental Health and Addiction*, 15, 1-12. <https://dx.doi.org/10.1007/s11469-020-00305-0>
- Shanley, P. (2020). Gaming Usage Up 75 Percent Amid Coronavirus Outbreak, Verizon Reports [Internet]. *Hollywood Reporter*. 2020 [cited 2020 Jun 26]. Available from: <https://www.hollywoodreporter.com/news/gaming-usage-up-75-percent-coronavirus-outbreak-verizon-reports-1285140>.
- Statistics Canada. (2020). Canadian Perspectives Survey Series 1: Impacts of COVID-19. Retrieved April 18, 2020, from https://www150.statcan.gc.ca/n1/en/daily-quotidien/200408/dq200408c-eng.pdf?st_QdNFbXIA
- Tezer, M. (2020). Academic procrastination behaviours and problematic internet usage of high school students during the COVID-19 pandemic period. *International Journal of Special Education and Information Technologies*, 6(1), 01–17. <https://doi.org/10.18844/jeset.v6i1.5490>
- Van Steijn, D.J., Oerlemans, A.M., van Aken, M.A.G., Buitelaar, J. K., Rommelse, N.N.J. (2015). The Influence of Parental and Offspring Autism Spectrum Disorder (ASD) and Attention-Deficit/Hyperactivity Disorder (ADHD) Symptoms on Family Climate. *Journal of Child and Family Studies*, 24(7), 2021-2030. <https://doi.org/10.1007/s10826-014-0002-9>
- Yılmaz, B. (2020). E-spor oyuncularinin algıladıkları sosyal destek, aile iklimi ve yetişkin bağlanma stillerinin oyun bağımlılığı üzerine etkisi. Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü Yüksek Lisans Tezi, Ankara. <http://www.openaccess.hacettepe.edu.tr:8080/xmlui/handle/11655/22581>