



The relationship between subjective happiness and social media usage during the COVID-19 pandemic: the moderating role of resilience

Sonia Khodabakhsh¹ & Somaye Ahmadi²

¹Psychology and Counselling Department, Universiti Tunku Abdul Rahman (UTAR), Kampar, Malaysia

²Psychology Department, Rasam Higher Education Institute, Karaj, Iran

Received: 2020-06-19

Accepted: 2020-10-27

The relationship between subjective happiness and social media usage during the COVID-19 pandemic: the moderating role of resilience

Summary. *The COVID-19 pandemic has had an impact on individuals' mental health. Individuals have tended to obtain information about the pandemic from social media. With the aim of exploring the relationship between subjective happiness and social media usage during the COVID-19 pandemic and the possible moderating role of resilience in this relationship, we asked 277 young adults in Iran to complete a number of online questionnaires, including a demographic questionnaire, a survey on social media usage, a subjective happiness scale and a brief resilience scale. The results showed that there is a significant negative correlation between social media usage and subjective happiness. In terms of the different degrees to which resilience can act as a moderator, our findings showed that when resilience is average or high, the relationship between social media usage and subjective happiness is significant. This study has implications for mental health professionals seeking knowledge about happiness during periods of adversity.*

Keywords: COVID-19 pandemic; Iran; resilience; social media usage; subjective happiness

La relación entre la felicidad subjetiva y el uso de las redes sociales durante la pandemia de COVID-19: el papel moderador de la resiliencia

Resumen. *La pandemia de COVID-19 ha tenido un impacto en la salud mental de las personas. Las personas tendían a obtener información sobre la pandemia en las redes sociales. Con el objetivo de explorar la relación entre la felicidad subjetiva y el uso de las redes sociales durante la pandemia de COVID-19 y el posible papel moderador de la resiliencia en esta relación, le pedimos a 277 adultos jóvenes en Irán que completaran una serie de cuestionarios en línea, incluido un cuestionario demográfico, una encuesta sobre el uso de las redes sociales, una escala de felicidad subjetiva y una breve escala de resiliencia. Los resultados mostraron que existe una correlación negativa significativa entre el uso de las redes sociales y la felicidad subjetiva. En términos de los diferentes grados en los que la resiliencia puede actuar como moderador, nuestros hallazgos mostraron que cuando la resiliencia es promedio o alta, la relación entre el uso de las redes sociales y la felicidad subjetiva es significativa. Este estudio tiene implicaciones para los profesionales de la salud mental que buscan conocimiento sobre la felicidad durante períodos de adversidad.*

Palabras clave: pandemia de COVID-19; Irán; Resiliencia; uso de redes sociales; felicidad subjetiva

Correspondence

Sonia Khodabakhsh

ORCID: <http://orcid.org/0000-0002-4217-4979>

Department of Psychology and Counselling, Faculty of Arts and

Social Science, University Tunku Abdul Rahman (UTAR),

Kampar 31900, Malaysia

soniak@utar.edu.my

Introduction

The 2019 coronavirus (COVID-19) pandemic is having a noticeable effect on individuals' lives and on societies all over the world. People are experiencing difficulties in different aspects of their lives, including psychological, financial, educational and even physiological problems. The pandemic has had both direct and indirect effects on individuals' mental health in a number of ways. Social distancing measures, quarantines, school and university closures, the inability to continue working, and the general lockdown of cities have all contributed to increasing citizens' distress during the outbreak. The coronavirus outbreak in Iran was officially confirmed in Qom on February 19, 2020 (Anadolu Agency, 2020). As of September 17, 2020, the number of confirmed Coronavirus cases in Iran had reached 410,334, while 23,632 had died of the disease in the country and 352,019 had recovered (Worldometer, 2020).

In this situation with people staying at home, many have tended to seek out different ways to keep in contact with the outside world and to stay informed about the latest news on the pandemic, looking to a range of national and international governmental and private sector sources. In recent decades, social media has become one of the main means of communication among people all over the world. In all countries, individuals spend a lot of time every day on social media, which they use to forge connections with others and for the purposes of entertainment, education, obtaining information and getting the news. The use of social media as a source of news and information about the COVID-19 has been a notable trend during the pandemic.

The term social media refers to online networks which make it possible for people to communicate and interact with large groups of individuals using the same network (Carr & Hayes, 2015). In a recent study during the COVID-19 outbreak in Wuhan, Gao et al. (2020) found that the COVID-19 pandemic had led to an increase in social media use. In fact, the results showed that more than 80% of participants reported frequent exposure to social media during the outbreak in Wuhan, China.

Social media usage has been shown to have both advantages and disadvantages for people's wellbeing (Keles et al., 2020; Longstreet & Brooks, 2017; Viner et al., 2019). Several studies have found that individuals can benefit from the opportunities social media affords them to express their emotions, connect to other people, reduce their feelings of loneliness and receive social support (Akhavan Malaayeri et al., 2015; Allcott et al., 2020; Deters & Mehl, 2013). However, other studies have concluded that social media usage is linked to higher level of depression and psychological distress (Best et al., 2014; Dhir et al., 2018; Hoare et al., 2016; Marino et al., 2018; McCare et al., 2017). The negative impact of social media usage has even been found by some studies to have taken the form of a contribution

to an overall increase in the rate of suicide and depression said to have accompanied the expansion of social media usage (Allcott et al., 2020; Twenge et al., 2018). It has also been argued that social media can be addictive and harmful (Alter, 2017; Newport, 2019).

People in different countries tend to use different social media platforms. For example, in Iran, Instagram and Facebook are the most common and popular platforms. According to international data (Datareportal, 2020), there were 33.4 million social media users in Iran in January 2020, a figure that reflects an increase of 9.4 million (+39%) between April 2019 and January 2020. In this study, we consider the most common social media platforms that Iranians use, including Instagram, Facebook, Telegram groups, and WhatsApp groups. Our aim is to explore how individuals' happiness is associated with their usage of social media during the COVID-19 pandemic. Additionally, we have sought to explore the moderating role of resilience and age in the relationship between social media usage and happiness.

Happiness is defined as an individual's perception that assesses pleasure throughout his or her life (Veenhoven, 2012). From a subjective viewpoint, happiness is described as emotional well-being that can be used to determine a person's well-being in the subjective condition (Diener, et al., 2003; Hashemiannejad et al., 2016; Veenhoven, 2009). One of the earliest academic definitions of happiness highlighted that happiness does not mean the rate at which one experiences specific happy moments, but rather refers to how happily an individual responds to his or her life situations (Tatarkiewicz, 1976).

The COVID-19 pandemic has increased loneliness and social isolation (Holmes et al., 2020) and caused many people to experience higher levels of depression and anxiety, both of which mean reductions in feelings of happiness (Elovainio et al., 2017; Matthews et al., 2019).

Meanwhile, during the COVID-19 pandemic, people have been seeking out trustworthy information and news. They have used media to help guide them through the outbreak (Holmes et al., 2020). In this situation, obtaining information can be positive and helpful for mental health and wellbeing. However, exposure to news and information about the pandemic can also increase public anxiety (Sell et al., 2017). Social media can spread erroneous information and reports very fast (Wang et al., 2019), possibly contributing to an increased perception of danger (Ng et al., 2018) and affecting people's wellbeing. Social media users may fall into a cycle of behaviour consisting of gathering information and news from social media, experiencing increased anxiety and helplessness, and turning back to social media, over and over (Thompson et al., 2019). According to Pennycook, Epstein, et al. (2020), many people want to avoid sharing misinformation, and they are often able to distinguish the truth from incorrect information. Nonetheless, they sometimes share inaccurate and deceptive information be-

cause their intentions might be based on factors other than accuracy of the information (e.g. political alignment) when they choose to share the content on social media.

During the COVID-19 pandemic, social media has been one of the most important platforms where people share information, both false and true (Penrycook, McPhetres, et al., 2020). Social media offer easy access to an enormous amount of content and can exacerbate the problems associated with misinformation and controversial data (Cinelli et al., 2020). Uncontrolled social media usage borne of an obsession with seeking information and news might have negative consequences on people's wellbeing and could affect their happiness and quality of life. Studies in Iran have shown that excessive use of social media has an impact on happiness (Ansari et al., 2016) and on individual and family functioning (Jafari Nadrabadi, 2018).

At the same time, research has shown that happiness and life satisfaction are associated with resilience (Beutel et al., 2010; Fereydooni et al., 2020; Han et al., 2020; Short et al., 2020). Resilience is the ability to overcome the stressful events through adequate psychological and physical functioning (Aboalshamat et al., 2018). According to the American Psychological Association (2020), resilience is the ability to confront trauma, high levels of stress, tragedy or disaster. For example, resilience is called for in facing severe health problems, environmental stressors or social and relationship problems. This means that resilient individuals can better cope with these kinds of hardships. Additionally, Martz and Livneh (2015) found that individuals with levels of resilience undergo less pain because of these better coping strategies.

In this study, we hypothesise that the use of social media during the COVID-19 pandemic has a relationship with individuals' happiness. Additionally, we believe that this relationship may be mediated by resilience as a moderator. The conceptual framework is illustrated in Figure 1.

Method

This study used a quantitative research method, with data gathered in the form of a survey. Data were collected during the COVID-19 outbreak from 20 March to 10 April 2020 in Iran. The questionnaires were distributed through online networks such as WhatsApp, Telegram, and the Iranian social network Soroush. The recipients were asked to distribute them to their con-

tacts as well. The informed consent forms were attached to the questionnaires. Participants all freely expressed a willingness to take part in this study, and the confidentiality and privacy of the respondents were ensured. The inclusion criteria called for participants who were young adults (aged 20 to 40) and who had smartphones, social media accounts, and internet access to use social media. A total of 277 completed questionnaires were included in data analysis after we had discarded incomplete questionnaires.

Instruments

In this study, the demographic questionnaire included information about age, gender, marital status, education level, and residential status (living alone, living with family, living with friends). Additionally, instruments to measure social media usage and subjective happiness were used, as was a brief resilience scale.

Social Media Usage

Social media usage was measured via a question about the total hours that participants spend on social media, including Instagram, Facebook, Telegram groups, and WhatsApp groups, for the purposes of getting information and news about COVID-19. Participants were asked to state the average number of hours for which they used social media only for this pandemic-related purpose. The calculation did not include time spent using social media for any purpose other than the pandemic (such as work/study-related hours).

Subjective Happiness Scale (SHS)

This instrument was developed by Lyubomirsky and Lepper (1999) to assess an individual's overall subjective happiness. Participants' degree of happiness is assessed through self-reporting and comparisons with others. The SHS consist of 4 items answered on a 7-point Likert scale. Each of the items assesses happiness in a different way. Item 1 is intended to examine the extent to which an individual thinks he or she is happy. Possible responses range from 1 to 7, with higher scores representing greater levels of happiness. Item 2 is meant to examine the extent to which a person believes him- or herself to be happy in comparison with others, with possible scores ranging from less happy to happier. Meanwhile, items 3 and 4 examine the extent to which an individual believes him- or herself to be generally happy or unhappy, with scores ranging from not at all happy to very happy. Higher scores on this instrument indicate higher levels of happiness (Lyubomirsky & Lepper, 1999). The score is calculated by adding up the scores (considering reversed items) and dividing by 4, which yields a total score from 1 to 7. The average range for SHS is 4.5 to 5.5 (Lyubomirsky, 2001; Lyubomirsky & Lepper, 1999). The reliability of the SHS is .86 while the validity of SHS is .62 (Sousa et al., 2017). The Persian version of SHS has a reliability coefficient, measured

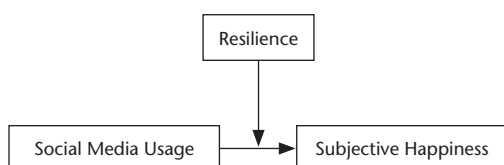


Figure 1. Conceptual framework of moderating effect of resilience on relationship between social media usage and subjective happiness.

in terms of internal consistency by Cronbach's alpha, of .76 (Aghababaei & Blachnio, 2014). In this study, the internal consistency of the SHS measured by Cronbach's alpha was .78.

Brief Resilience Scale (BRS)

This instrument, developed by Smith et al. (2008), measures the ability of an individual to recover from stress and difficult situations. BRS consist of six items answered on a 5-point Likert scale ranging from 1 to 5 or from strongly disagree to strongly agree. Three of the items on the Brief Resilience Scale are reversed scores. This technique is used to prevent desirability response bias. The total score on the BRS is the sum of scores by (considering the reversed items) divided by 6. This calculation yields scores ranging from 1 to 5. The internal consistency of BRS measured by Cronbach's alpha is .93 (Rodríguez-Rey et al., 2016) and it is ranges between .82 to .91 for individual items (Amat et al., 2014). Respondents are more resilient when they record higher mean scores on the the Brief Resilience Scale (Kyriazos et al., 2018). The Persian version of BRS has a reliability coefficient of internal consistency, measured by Cronbach's alpha, of .76 (Kashani & Najafi, 2016). In this study, the internal consistency calculated using Cronbach's alpha was .77.

Results

A total of 277 questionnaires were collected in this study for data analysis. Table 1 shows the sample demographic information, and Table 2 shows the descriptive statistics on age, social media usage, resilience, and subjective happiness for the participants of this study.

Before carrying out the Pearson correlation analysis and moderation analyses in this study, five basic assumptions were tested, including the absence of outliers, normality, linearity, homoscedasticity, and multicollinearity (Creswell & Creswell, 2017). Since all the assumptions were fulfilled, a Pearson product-moment correlation was conducted to determine the relationship between social media usage and subjective happiness.

The outcomes of the Pearson Correlation analysis showed that there is a significant negative correlation between social media usage and subjective happiness ($r=-.278$, $p<.001$). According to Cohen (1988), when classifying and interpreting correlation strength using r , values of .10 to .30 are considered to represent weak correlations. Elsewhere, a classification by Evans (1996) has said that correlations between .20 and .39 are weak. According to these two classification systems, the correlation between social media usage and subjective happiness found in this study can be interpreted as a weak correlation.

The tests of the moderating effects of resilience on how social media usage associates with subjective happiness was performed using Hayes's SPSS macro PROCES analysis (Hayes, 2017). The overall model showed

Table 1. Frequency of Demographic Variables (N=277)

	Frequency	Percentage
Gender		
Male	121	43.7
Female	156	56.3
Marital Status		
Single	172	62.1
Married	77	27.8
Divorced	28	10.1
Living With		
Alone	42	15.2
Family	185	66.8
Friends	50	18.1
Education		
Diploma or Below	62	22.4
Bachelor	119	43
Master	60	21.7
PhD	20	7.2
Rather Not to Say	16	5.8

Table 2. Descriptive Statistics of Variables (N= 277)

Variables	Minimum	Maximum	Mean	SD-3
Age	18	37	29.02	4.71
Social Media Usage	1	8	4.07	1.76
Subjective Happiness	1.5	7	4.16	1.07
Resilience	1	5	3.29	.83

Table 3. Moderating Role of Resilience in Relationship between Social Media Usage and Subjective Happiness (N=277)

Model	b	df	t	P	LLCI	ULCI
Resilience	.555	273	1.130**	.001	.206	.904
Social Media Usage	.186	273	1.321	.187	-.091	.464
Interaction	-.111	273	-2.640	.008	-.193	-.028

Note: ** $p<.001$.

that the moderating effect of resilience on the model is statistically significant $F(3,273)=11.270$, $p<.01$, $R^2=.110$. Table 3 shows the interaction between the variables. According to the results, for every one-unit increase in resilience scores, we get a .555 unit increase in subjective happiness. In this study, the effect size (R^2) in the moderation model was low. While moderation in the model was considered statistically significant, the small effect size may indicate that other uncontrolled variables have an unregulated impact on the current study.

Slopes for social media usage predicting subjective happiness at each level of resilience showed that for low resilience [$b=-.087$, $t(273) = -1.811$, $p=.071$], there is no relationship between social media usage and subjective happiness. For average resilience [$b=-.179$, $t(273)=-5.132$, $p<.01$], there is a relationship between social media usage and subjective happiness. Every slope of social media usage gives us -5.132 on our happiness. For high resilience [$b=-.272$, $t(273)=-5.340$, $p<.01$] there is a relationship between social media usage and subjective happiness. Every slope of social media usage gives us -5.340 on our happiness.

According to an analysis based on the Johnson-Neyman technique, if the resilience level is above 2.506

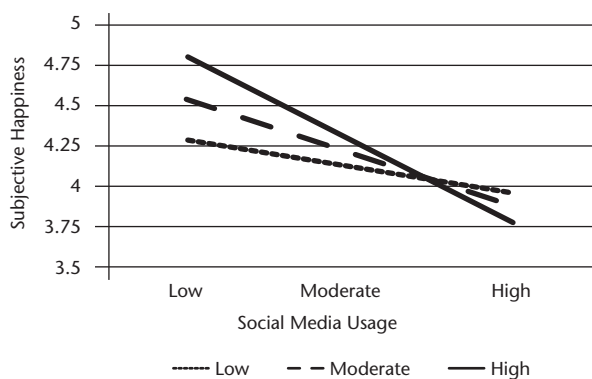


Figure 2. Interaction between social media usage and resilience in predicting subjective happiness.

on the resilience scale, social media usage and happiness levels are significantly related [$b=-.092$, $t(273)=-1.968$, $p=.05$]. As resilience levels increase, the relationship between social media usage and happiness becomes more negative. Figure 2 presents the interaction between social media usage and resilience in predicting subjective happiness.

Discussion

The aim of this study was to examine the relationship between subjective happiness and social media usage during the COVID-19 pandemic in Iran. It further sought to explore whether the association between social media usage and subjective happiness was moderated by the resilience level of participants during this outbreak.

This study found that during the COVID-19 pandemic Iranians spent a mean of 4.07 hours a day on social media specifically to obtain information about the pandemic. This finding is similar to those of a report published by the Iranian Students' News Agency (2018), which stated that the average social media usage among Iranians is between 4 to 7 hours a day, much higher than global average for social media usage.

The result revealed that there is a significant relationship between social media usage and subjective happiness. The correlation is negative, indicating that if social media usage increases, subjective happiness decreases. In other words, a person who spends more time on social media seeking, reading or watching content related to news or information about the COVID-19 pandemic is more likely to report lower levels of subjective happiness than a person who spends less time on social media looking at content related to the outbreak. In this regard, it should be noted that even though the correlation is weak, it is nonetheless statistically significant.

This finding was in line with previous research that has concluded that social media overuse is associated with depression and low levels of happiness (Best et al., 2014; Dhir et al., 2018; Hoare et al., 2016; Marino et al., 2018; McCare et al., 2017). Because in this study social media usage was defined in terms of using social

media to obtain information, news, or any content related to the COVID-19 pandemic, it can be observed that when people spend more time on social media for this purpose, they report lower levels of subjective happiness. This impact may be due to the magnifying role of social media in reporting the risk and danger of the pandemic. Additionally, social media can be a source of misinformation (Wang et al., 2019). During the period of lockdown, people in different countries sought out information from a range of resources. Many social media accounts do not provide scientifically accurate or reliable information, and they may share unproven data and news items not supported by any evidence. Even the official accounts that share reliable information also share lots of information about the risk of the virus and statistical reports on the death toll or the at-risk population. These types of information, whether they are true or false, will increase individuals' anxiety, depression, and feelings of helplessness concerning the COVID-19 pandemic and decrease their happiness and positive emotions.

In this time of uncertainty, much like other difficult times in life, individuals' resilience plays a significant role in their ability to engage successfully with adverse events and experiences (McGinnis, 2018; Ryff & Singer, 2003). In the current study, the moderating role of resilience was explored in order to determine whether the interaction of resilience and social media usage had an influence on the level of subjective happiness during the COVID-19 pandemic. The results of this study revealed that the overall interaction between social media usage and resilience had a significant association with subjective happiness. Exploring the different levels of resilience showed that when the participants' resilience was low, there was no relationship between social media usage and subjective happiness. However, when the levels of resilience were average or high, the relationship between social media usage and subjective happiness was significant. This means that when people have an average or above average levels of resilience, social media usage is associated with a decrease in subjective happiness. In contrast to previous studies (Beutel et al., 2010; Fereydooni et al., 2020; Han et al., 2020; Short et al., 2020), there was no significant relationship between subjective happiness itself and resilience. Although this exploration was not the aim of the current study, this is substantial information for interpreting the findings of the moderating role of resilience in the relationship between social media usage and happiness.

It should be highlighted that, in this study, the relationship between social media usage and subjective happiness was a weak one, though it remained statistically significant. Meanwhile, the moderating role of resilience on the association between social media usage and subjective happiness also showed a low effect size as well. Even though the results in both analyses showed a low effect sizes, but they should be considered for more investigation as both were statistically significant.

Implications

The most important implication of this study is that it shows us that increased social media use during the COVID-19 pandemic is associated with a decreased level of subjective happiness in individuals. As this study was correlational, it is not possible to understand whether the overuse of social media leads to lower levels of happiness, or whether people who are less happy tend to spend more time on social media.

At the same time, as in this study participants were asked to report how much they use social media to obtain information and news about the COVID-19 pandemic, it can be said that during this kind of outbreak governments or professional associations should consider putting in place controls and policies to prevent the spread of misinformation which may amplify panic and distress in populations, with possible consequences for happiness, general wellbeing and health. Providing genuine and sufficient information from professional organizations to inform people about the pandemic and to educate society is an important way to help ensure that people will not seek information from unofficial sources such as unreliable social media accounts.

Limitations and recommendations for future studies

This study was done during the COVID-19 pandemic, which was a time of extreme uncertainty for Iranians. The majority of people were not psychologically and emotionally in a stable state, and they were under the highest level of pandemic stress. This might influence the self-report questionnaires about happiness and resilience. Therefore, more research is needed to explore the relationship between social media and happiness and the moderating role of resilience. It is recommended to explore this important relationship in other countries and among a larger number of participants. Moreover, the data for this study were collected online and participants volunteered to take part. Hence, the data may suffer from the sampling method. Even though the sample size was considered to be sufficient, it would be desirable to use a different sampling method or data collection procedure to avoid possible bias associated with the sampling method. It would also be worth conducting experimental studies designed to explore the causal relationship between social media and happiness, even after the pandemic. Furthermore, future research could consider taking positive steps to control for other variables which may affect the results. Additionally, the model could benefit from the inclusion of other variables to explore the associations between these variables again and find out whether there is any relationship or moderating role effect in this conceptual framework. Because the effect sizes in the current study were low, further investigations are needed. However, the current study's findings can be used as a starting off point for future investigations. The use of pre-designed content for social media

in an experimental study would provide deeper information for policymakers and mental health professionals and allow them to gain knowledge to inform their policies and interventions when they are faced with experiences of adversity or outbreaks in the future.

Authors Disclosure Statement

No competing interests exist.

References

- Aboalshamat, K., Alsiyud, A., Al-Sayed, R., Alreddadi, R., Faqiehi, S., & Almeahmadi, S. (2018). The relationship between resilience, happiness, and life satisfaction in dental and medical students in Jeddah, Saudi Arabia. *Nigerian Journal of Clinical Practice*, 21(8), 1038-1043. https://doi:10.4103/njcp.njcp_278_17
- Aghababaei, N., & Błachnio, A. (2014). The relations among the HEXACO model of personality, religiosity, and subjective well-being in Iranian and Polish college students. *Contemporary Psychology, Biannual Journal of the Iranian Psychological Association*, 9(1), 17-28. <http://bjcp.ir/article-1-490-en.pdf>
- Akhavan Malaayeri, F., Noghaani, M., Mazlum Khorasani, M. (2015). Virtual Social Networks and Happiness. *Interdisciplinary Studies in Media and Culture*, 4(8), 1-24. http://mediastudy.ihcs.ac.ir/article_1487_023a934300e47c7b6a71c0d993701340.pdf
- Allcott, H., Braghieri, L., Eichmeyer, S., & Gentzkow, M. (2020). The welfare effects of social media. *American Economic Review*, 110(3), 629-76. <https://doi.org/10.1257/aer.20190658>
- Alter, A. (2017). *Irresistible: The rise of addictive technology and the business of keeping us hooked*. Penguin. <http://www.mattwkane.com/wp-content/uploads/2020/01/Irresistible.pdf>
- Amat, S., Mayalagu, G., Zainal Abidin, M. H., Mahmud, I. M., Subhan, M., & Abu Bakar, A. Y. (2018). Resilience and sense of belonging among medical students in a Malaysian public university. *International Journal of Engineering & Technology*, 7, 70-73. <https://doi.org/10.14419/ijet.v7i2.10.11014>
- American Psychological Association. (2020, January 1). *Building your resilience*. <http://www.apa.org/help-center/road-resilience.aspx>
- Anadolu Agency. (2020, February 19). *Iran confirms first two deaths from coronavirus*. <https://www.aa.com.tr/en/health/iran-confirms-first-two-deaths-from-coronavirus/1738679>
- Ansari, H., Ansari-Moghaddam, A., Mohammadi, M., Peyvand, M., Amani, Z., & Arbabisarjou, A. (2016). Internet addiction and happiness among medical sciences students in southeastern Iran. *Health Scope*, 5(2). <http://dx.doi.org/10.5812/jhealthscope.20166>
- Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media and adolescent well-being: A systematic narrative review. *Children and Youth Services Review*, 41, 27-36. <https://doi.org/10.1016/j.childyouth.2014.03.001>

- Beutel, M. E., Glaesmer, H., Wiltink, J., Marian, H., & Brähler, E. (2010). Life satisfaction, anxiety, depression and resilience across the life span of men. *The Aging Male*, 13(1), 32-39. <https://doi.org/10.3109/13685530903296698>
- Carr, C. T., & Hayes, R. A. (2015). Social media: defining, developing, and divining. *Atlantic Journal of Communication*, 23(1), 46-65. <https://doi.org/10.1080/15456870.2015.972282>
- Cinelli, M., Quattrocchi, W., Galeazzi, A., Valensise, C. M., Brugnoli, E., Schmidt, A. L., Zola, P., Zollo, F., & Scala, A. (2020). The covid-19 social media infodemic. *SciRep* 10, 16598. <https://doi.org/10.1038/s41598-020-73510-5>
- Cohen, L. H. (1988). *Life events and psychological functioning: Theoretical and methodological issues* (Vol. 90). Sage Publications, Inc.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Datereportal. (2020, February 18). *Digital 2020: Iran*. <https://datereportal.com/reports/digital-2020-iran>
- Deters, F. G., & Mehl, M. R. (2013). Does posting Facebook status updates increase or decrease loneliness? An online social networking experiment. *Social Psychological and Personality Science*, 4(5), 579-586. <https://dx.doi.org/10.1177%2F1948550612469233>
- Dhir, A., Yossatorn, Y., Kaur, P., & Chen, S. (2018). Online social media fatigue and psychological wellbeing—A study of compulsive use, fear of missing out, fatigue, anxiety and depression. *International Journal of Information Management*, 40, 141-152. <https://doi.org/10.1016/j.jinfomgt.2018.01.012>
- Diener, E., Scollon, C. N., & Lucas, R. E. (2003). The evolving concept of subjective well-being: the multifaceted nature of happiness. *Advances in Cell Aging and Gerontology*, 187-219. https://doi.org/10.1007/978-90-481-2354-4_4
- Elovainio, M., Hakulinen, C., Pulkki-Råback, L., Virtanen, M., Josefsson, K., Jokela, M., Vahtera, J., & Kivimäki, M. (2017). Contribution of risk factors to excess mortality in isolated and lonely individuals: an analysis of data from the UK Biobank cohort study. *The Lancet Public Health*, 2(6), e260-e266. [https://doi.org/10.1016/S2468-2667\(17\)30075-0](https://doi.org/10.1016/S2468-2667(17)30075-0)
- Evans, J. D. (1996). *Straightforward statistics for the behavioral sciences*. Thomson Brooks/Cole Publishing Co.
- Fereydooni, A., Heidari, A., Eftekhar Saadi, Z., Ehteshamzadeh, P., & Pasha, R. (2020). Comparison of effectiveness of mindfulness and happiness training in promoting parent-child interaction case study: mothers of anxious preschool children in Shahrekord city, southwest of Iran. *Journal of Community Health Research*, 9(1), 37-45. <https://doi.org/10.18502/jchr.v9i1.2573>
- Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., Wang, Y., Hua, F., & Dai, J. (2020). Mental health problems and social media exposure during COVID-19 outbreak. *Plos one*, 15(4), e0231924. <https://doi.org/10.1371/journal.pone.0231924>
- Han, S., Oh, J., Huh, B., & Kim, H. (2020). Mediating Effects of Resilience between Nurse's Character and Happiness for Nurses in General Hospitals. *Journal of Korean Academy of Nursing Administration*, 26(1), 22-30. <https://doi.org/10.11111/jkana.2020.26.1.22>
- Hashemiannejad, F., Oloomi, S., & Oloomi, S. (2016). Examine the relationship between critical thinking and happiness and social adjustment. *International Academic Journal of Social Sciences*, 3(6), 42-47. <https://doi.org/10.9756/IAJSS/V6I1/1910003>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.
- Hoare, E., Milton, K., Foster, C., & Allender, S. (2016). The associations between sedentary behaviour and mental health among adolescents: A systematic review. *International Journal of Behavioral Nutrition and Physical Activity*, 13(1), 108. <https://doi.org/10.1186/s12966-016-0432-4>
- Holmes, E. A., O'Connor, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., Ballard, C., Christensen, H., Cohen, R., Everall, I., Ford, T., John, A., Kabir, T., King, K., Madan, I., Michie, S., Przybyski, A. K., Shafran, R., Sweeney, A., ... Bullmore, E. (2020). Multi-disciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. *The Lancet Psychiatry* 7(6), 547-560. [https://doi.org/10.1016/S2215-0366\(20\)30168-1](https://doi.org/10.1016/S2215-0366(20)30168-1)
- Iranian Students' News Agency. (2018, August 25). *Social media usage in Iran*. <https://www.isna.ir/news/97060300850/>
- Jafari Nadrabadi, M. (2018). Relationship between social media usage and family functioning among students. *Sociology of Education*, 8, 30-45. https://iranjournals.nlai.ir/article_20098_b22450569d64f41f03b72391bde8c9ee.pdf
- Kashani, V. O., & Najafi, T. (2016). The Brief Scale of Resilience in Disabled and Veteran Athletes; Psychometric Properties of the Persian Version. *Publish System*, 8(1), 49-55. http://yektabwebtest.ir/demo_all2/article-1-57-en.html
- Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International Journal of Adolescence and Youth*, 25(1), 79-93. <https://doi.org/10.1080/02673843.2019.1590851>
- Kyriazos, T. A., Stalikas, A., Prassa, K., Galanakis, M., Yotsidi, V., & Lakioti, A. (2018). Psychometric evidence of the Brief Resilience Scale (BRS) and modeling distinctiveness of resilience from depression and stress. *Psychology*, 9(7), 1828-1857. <https://doi.org/10.4236/psych.2018.97107>
- Longstreet, P., & Brooks, S. (2017). Life satisfaction: A key to managing internet & social media addiction. *Technology in Society*, 50, 73-77. <https://doi.org/10.1016/j.techsoc.2017.05.003>
- Lyubomirsky, S. (2001). Why are some people happier than others? The role of cognitive and motivational

- processes in well-being. *American psychologist*, 56(3), 239. <https://doi.org/10.1037/0003-066X.56.3.239>
- Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, 46(2), 137-155. <https://doi.org/10.1023/A:1006824100041>
- Marino, C., Gini, G., Vieno, A., & Spada, M. M. (2018). The associations between problematic Facebook use, psychological distress and well-being among adolescents and young adults: A systematic review and meta-analysis. *Journal of Affective Disorders*, 226, 274-281. <https://doi.org/10.1016/j.jad.2017.10.007>
- Martz, E., & Livneh, H. (2015). Psychosocial adaptation to disability within the context of positive psychology: Findings from the literature. *Journal of Occupational Rehabilitation*, 26(1), 4-12. <https://doi.org/10.1007/s10926-015-9598-x>
- Matthews, T., Danese, A., Caspi, A., Fisher, H. L., Goldman-Mellor, S., Kopa, A., Moffitt, T. E., Odgers, C. L., & Arseneault, L. (2019). Lonely young adults in modern Britain: findings from an epidemiological cohort study. *Psychological medicine*, 49(2), 268-277. <https://doi.org/10.1017/S0033291718000788>
- McCrae, N., Gettings, S., & Pursell, E. (2017). Social media and depressive symptoms in childhood and adolescence: A systematic review. *Adolescent Research Review*, 2(4), 315-330. <https://doi.org/10.1007/s40894-017-0053-4>
- McGinnis, D. (2018). Resilience, life events, and well-being during midlife: Examining resilience subgroups. *Journal of adult development*, 25(3), 198-221. <https://doi.org/10.1007/s10804-018-9288-y>
- Newport, C. (2019). *Digital minimalism: Choosing a focused life in a noisy world*. Penguin.
- Ng, Y. J., Yang, Z. J., & Vishwanath, A. (2018). To fear or not to fear? Applying the social amplification of risk framework on two environmental health risks in Singapore. *Journal of Risk Research*, 21(12), 1487-1501. <https://doi.org/10.1080/13669877.2017.1313762>
- Pennycook, G., Epstein, Z., Mosleh, M., Arechar, A. A., Eckles, D., Rand, D. G. (2020). Understanding and reducing the spread of misinformation online. *PsyArXiv Preprints*. <https://doi.org/10.31234/osf.io/3n9u8>
- Pennycook, G., McPhetres, J., Zhang, Y., Lu, J. G., & Rand, D. G. (2020). Fighting COVID-19 misinformation on social media: Experimental evidence for a scalable accuracy-nudge intervention. *Psychological science*, 31(7), 770-780. <https://doi.org/10.1177/2F0956797620939054>
- Rodríguez-Rey, R., Alonso-Tapia, J., & Hernansaiz-Garrido, H. (2016). Reliability and validity of the Brief Resilience Scale (BRS) Spanish Version. *Psychological Assessment*, 28(5), e101-e110. <https://doi.org/10.1037/pas0000191>
- Ryff, C. D., & Singer, B. (2003). Flourishing under fire: Resilience as a prototype of challenged thriving. *Flourishing: Positive psychology and the life well-lived* (p. 15-36). American Psychological Association. <https://doi.org/10.1037/10594-001>
- Sell, T. K., Boddie, C., McGinty, E. E., Pollack, K., Smith, K. C., Burke, T. A., & Rutkow, L. (2017). Media messages and perception of risk for Ebola virus infection, United States. *Emerging infectious diseases*, 23(1), 108. <https://doi.org/10.3201/eid2301.160589>
- Short, C. A., Barnes, S., Carson, J. F., & Platt, I. (2020). Happiness as a predictor of resilience in students at a further education college. *Journal of Further and Higher Education*, 44(2), 170-184. <https://doi.org/10.1080/0309877X.2018.1527021>
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine*, 15(3), 194-200. <https://doi.org/10.1080/10705500802222972>
- Sousa, L. M., Vieira, C. M., Severino, S. S., Pozo-Rosado, J. L., & José, H. M. (2017). Validation of the subjective happiness scale in people with chronic kidney disease. *Enfermeria Global*, 16(3), 60-70. <https://doi.org/10.6018/eglobal.16.3.266571>
- Tatarkiewicz, W. (1976). Analysis of happiness. *Philosophy and Phenomenological Research*, 38(1), 139-140. <https://doi.org/10.2307/2106529>
- Thompson, R. R., Jones, N. M., Holman, E. A., & Silver, R. C. (2019). Media exposure to mass violence events can fuel a cycle of distress. *Science Advances*, 5(4), eaav3502. <https://doi.org/10.1126/sciadv.aav3502>
- Twenge, J. M., Martin, G. N., & Campbell, W. K. (2018). Decreases in psychological well-being among American adolescents after 2012 and links to screen time during the rise of smartphone technology. *Emotion*, 18(6), 765. <https://doi.org/10.1037/emo0000403>
- Veenhoven, R. (2009). How do we assess how happy we are? Tenets, implications and tenability of three theories. *Happiness, Economics and Politics*. 45-69. Edward Elgar Publishing. <https://personal.eur.nl/veenhoven/Pub2000s/2009a-full.pdf>
- Veenhoven, R. (2012). Happiness: Also known as "life Satisfaction" and "subjective well-being". *Handbook of Social Indicators and Quality of Life Research*. 63-77. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-2421-1_3
- Viner, R. M., Aswathikutty-Gireesh, A., Stiglic, N., Hudson, L. D., Goddings, A. L., Ward, J. L., & Nicholls, D. E. (2019). Roles of cyberbullying, sleep, and physical activity in mediating the effects of social media use on mental health and wellbeing among young people in England: a secondary analysis of longitudinal data. *The Lancet Child & Adolescent Health*, 3(10), 685-696. [https://doi.org/10.1016/S2352-4642\(19\)30186-5](https://doi.org/10.1016/S2352-4642(19)30186-5)
- Wang, Y., McKee, M., Torbica, A., & Stuckler, D. (2019). Systematic literature review on the spread of health-related misinformation on social media. *Social Science & Medicine*, 240, 112552. <https://doi.org/10.1016/j.socscimed.2019.112552>
- Worldometer. (2020, September 17). *Coronavirus in Iran*. <https://www.worldometers.info/coronavirus/country/iran/>