

The relationship between social media use and mental health among A'Sharqiyah University students

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Abstract. Social media have rapidly become a dominant communication platform worldwide. However, it is thought that people are losing some of their mental health when overusing cyber communication. This descriptive cross-sectional study aimed to reveal the relationship between the use of social media and mental health among A'Sharqiyah University students in the Sultanate of Oman. The sample was 528 students: 76 male and 452 females. The researcher sent the tools via emails to all university students; however, only 528 participated. The results indicated social media use was 48%, while the mental health level was 71%. The results also indicated there were differences in social media use due to gender in favor of males. The study found the degree of social media use was correlated, not necessarily causal, to the level of mental health. The simple linear regression analysis has indicated that social media use contributed to explaining 32% of the variance in mental health. The correlation coefficient was found at -0.57 which indicated an inverse correlation between social media and mental health.

Keywords: Social media, mental health, psychological disorders, university students.

INTRODUCTION

Communication occupies a central position in human life and the causes of their well-being. Communication is a social phenomenon based on a reciprocal relationship between two or more parties using different methods and tools, whether electronic through social networking sites or direct communication between individuals. Social networking sites have provided a new era of effective communication as they sites have attracted millions of users especially university students.

Obar and William (2015: 2) define social media in three points: "1) Social media services are ... Internet-based applications, 2) User-generated content is the lifeblood of social media, 3) Individuals and groups create profiles for a site or app designed and maintained by a social media service 4) Social media services facilitate the development of social networks online by connecting a profile with those of other individuals and/or groups."

Students are increasingly using social media sites due to their constant desire to form networks of relationships

amongst different societies.

Statistics indicate that one in two people in the world population uses social media. 3.8 billion users globally use social media representing about 50% of the world population (Routley, 2018). In the Sultanate of Oman, a survey on social media use conducted by the National Center for Statistics and Information in March 2019 showed that 94% of Omanis aged 18 and over use social media. The survey also indicated that the average of social media daily use was 6 hours per day. It also revealed that the rush hours of social media use were mainly from eight in the evening to noon. Regarding purpose, friends and family contact was the most common use 91%, followed by news updating 47%. Around half of the Omanis, 52% believed social media had a positive impact on their social and work life. In contrast, 48% of them assumed a negative impact of these sites (National Center for Statistics and Information, 2020).

Mental health is a widely interesting field because scientists eagerly want to know the exact definition of mental health or what makes a good mental health condition. Mental health is a relative cultural concept, as it is not fixed. It can be affected by several social, cultural and environmental factors (Al-Khalidi, 2020). Mental health mainly aims to build a balanced-personality individual able to encounter challenges and self-regulate. In the era of globalization, rapid changes and challenges, Hegazy (2004) say mental health has increasingly become a crucial constituent in human life.

Mentally healthy humans can courageously face life difficulties in order to reach goals. They can feel comfortable and have considerable personal and community contributions. It has also been observed in recent years that many projects have targeted psychological support in developing countries that suffer from wars and disasters. Those projects mainly target women, children, and youth (Al-Ayer, 2010; Al-Khalidi, 2000).

There some indications and signs that assess an individual's mental health. One indicator is the ability to interact socially and to build relationships with others. Other indicators include self-confidence, emotional maturity, self-control, and respecting others' rights and interests. Adherence to ethical values required in mutual relationships such as loyalty, honesty and support is also an indication for mental health. Self-acceptance and utilization of others' capabilities to develop them can also give indications for mental health (Al-Quraiti, 1992; Hegazy, 2004).

Many studies have indicated the negative effects of social media on individuals' psychological traits. Khaliwi (2017) indicated depression, anxiety, and introversion are positive correlations to social media among university students. Kaddoura (2017) showed a negative correlation between social media use and mental health on one hand and between some personality traits on the other hand. Kaddoura did not find differences due to gender, scientific specialization, or place of residence.

The study of Younus (2016) concluded social media addiction was related to psychological disorders. Similarly, Kirschnef (2014) and Matsue (2014) both confirmed the negative impact of social media use on university students' mental health and increased anxiety. The results of the Sullivan and Paradise (2012) study revealed 64% of college students use Facebook seven days a week. Findings showed that addiction to Facebook leads to isolation, while moderate use leads to psychological and social harmony. Kalpidou *et al.* (2011), too, indicated long-time Facebook users were negatively associated with psychological and academic adjustment.

The study problem and its questions

Social media have become widely used among young people and university students due to the multiple

services provided by social media such as messaging and advertising. Through daily observation, the research team observed prevailing social media use among university students in all university facilities. Sometimes students even access their pages during lectures. The research team believes students' interaction within social media sites may have multiple psychological and educational drawbacks. The researchers have been noticing students' real contact with real people may have been negatively affected as a result of the controverted nature of cyber communication. This may be a sign of mental health fragile condition.

Therefore, this paper came to study the effect of social networking use on A' Sharqiyah University students on their mental health level. The study seeks to answer the following questions:

1. What is the level of social media use and mental health among A' Sharqiyah University students?
2. Are there statistically significant differences in the degree of social media use and mental health due to variables (gender, specialization)?
3. Are there statistically significant differences in the level of mental health due to variables (number of hours of use, degree of use)?
4. Is there a statistically significant correlation between the use of social media and mental health?

MATERIALS AND METHODS

Study methodology

The descriptive correlational approach was used to describe, analyze and interpret the results of the study responses, and the correlation between social networking use and the level of mental health.

Study population and sample

The study population consists of all A' Sharqiyah University students registered during the 2020/2021 academic year 4295 male and female students: 751 are males and 3536 are females. The study sample consisted of 528 male and female students from different colleges, years, and academic levels. The study tools were sent via email to all students. The tools remained available for around a month till an accepted percentage of students participated. Therefore, it is a simple random sample. Table 1 shows the population and sample of the study.

Study instruments

The mental health scale

The mental health scale was developed based on a set of

Table 1. The study population and sample.

Variable	Category	N Population	N Sample	%
Gender	Male	751	76	10.1
	Female	3536	452	12.8
College	Humanities	3605	411	11.7
	Scientific	682	117	10.5

scales such as Al-Sharifian and Al-Sharifian (2014), Jomah *et al.* (2019), and Ryff and Keyes (1995). Available scales are good, but not updated. In addition, the newly developed scale includes a domain for academic signs of mental health to suit the sample of the study.

In its final form, the scale consists of 30 items using a five-degree Likert scale: (5= strongly agree) and (1 = strongly disagree). The questionnaire has four domains of mental health:

1. **Social:** (6 items) This domain measures the individual's ability to build relationships with others, form human relationships with trust, respect, and harmony. It also measures positive contributions to social events and activities. Here are items of the social domain:

- a) I can easily make friendships.
- b) I behave confidently in social events.
- c) I feel others are watching me and talking about me.

2. **Psychological:** (11 items) This domain measures the extent to which the individual is free from illnesses and mental disorders. It measures self-acceptance and self-value as well. The domain can also find out the capabilities that make one capable of giving and facing difficulties. Here are some items of the psychological domain:

- a) I feel depressed.
- b) I have claustrophobia.
- c) I am nervous for no reason.

3. **Physical:** (7 items) This domain measures the individual's enjoyment of physical safety and freedom of diseases and physical disorders. Here are some items of the physical domain:

- a) I have a constant headache.
- b) I am losing my appetite.
- c) I suffer from tiredness and fatigue.

4. **Academic:** (6 items) This domain measures the individual's ability to adapt to the educational environment, the academic achievement, and the

maintenance of good relations with teachers. Here are some items of the academic domain:

- a) I can do my assignments independently.
- b) I have some memory inconveniences.
- c) I can hardly concentrate on my lessons.

To judge the level of mental health through the item and domains, scores were divided into five categories: dividing the range of scores (5-1 = 4) by the number of categories (4/5 = 0.8). Thus, the length of the category is (0.8). The categories are as follows: (1.00-1.80) very low, (1.81-2.60) low, (2.61-3.40) medium, (3.41-4.20) high, and (4.21-5.00) very high.

The scale of the degree of social media use (DSMU)

The scale of the degree of social media use was developed based on a set of studies such as Al-Osaimi (2010), Kaddoura (2017), Nomar (2012) and Saudi (2014). The developed scale consists of 24 items and a five-degree Likert scale.

To judge the degree of social media usage, the grade range was divided into four categories by dividing the score range (5 - 1 = 4) by the number of categories (4/4 = 1). Thus, the length of the category is (1). The categories are as follows: (1.00-1.99) low, (2.00-2.99) medium, (3.00-3.99) high, and (4.00-5.00) excessive.

Here are some items of the (DSMU) scale:

- a) I feel life is boring without social media sites.
- b) My family members complain about my excessive use of social media.
- c) I regret spending too much time on social media.
- d) Using social media is negatively my academic achievement.
- e) I watch porn scenes on social media.

The validity of the study instruments

After preparing the instruments, they were sent to 11

Table 2. The mean, standard deviations, percentages, and the level of the scale of the use of social media sites, and the scale of mental health.

Scale	Domain	Mean	SD	Skewness	Kurtosis	%	Level
Mental health	Social	3.57	0.66	-0.27	0.23	71.4	High
	Psychological	3.43	0.7	-0.26	-0.36	68.5	High
	Physical	3.62	0.78	-0.17	-0.3	72.4	High
	Academic	3.76	0.71	-0.35	0.02	75.2	High
	Total	3.57	0.6	-0.23	-0.06	71.3	High
DSMU	Total	2.41	0.51	0.12	-0.27	48.3	Med

referees specialized in psychology, assessment and evaluation, and educational counseling. They helped to verify the relevancy of items to domains to which they belong and ensuring language clarity. Besides, the referees were asked to check the item's appropriateness to the Omani environment. The tools, then, were modified in accordance with the referees' notes.

For construct validity, the correlation coefficients were calculated between items, domains, and the total score for both scales. The correlation coefficients between the domains of the mental health scale ranged between 0.43-0.72, while the correlation coefficients between the domains and total score ranged between 0.73-0.93, as all the values of the correlation coefficients were high and statistically significant at the level of significance (0.01). The correlation coefficients between items and domains ranged between 0.39-0.83, while the correlation coefficients between items and the total score ranged between 0.31-0.73. All the values of the correlation coefficients were high and statistically significant at the level of significance (0.01) which indicates the two scales have a high degree of construct validity.

The reliability of the study instruments

The study instruments' reliability was verified using two methods: internal consistency using the Cronbach Alpha equation, and Stability coefficient by calculating the Pearson correlation coefficient for the two specimen samples.

The Cronbach's Alpha coefficients for domains of mental health scale ranged between 0.72-0.80, with 0.90 for the total scale, and the Stability coefficients for domains of mental health scale ranged between 0.79-0.82, with 0.92 for the total scale. The Cronbach's Alpha coefficient for the DSMU scale reached 0.84, and the

Stability coefficient reached 0.89. These coefficients indicate the scales have high reliability.

RESULTS

The results referring to the first question

The mean, standard deviations, percentages, and the level were calculated on the scale of social media use, and the scale of mental health. The results were as shown in [Table 2](#).

It is evident from [Table 2](#) that the level of mental health was high among the study members with a mean of 3.57 and a percentage of 71%. All the domains were not at a low level. The academic domain was the highest domain of mental health among the study sample, while the degree of social media use was at the average level, with a mean of 2.41 and a percentage of 48%. [Table 3](#) illustrates the nature of social media use by A'Sharqiyah University students. It was also clear that the values of skewness and Kurtosis were all low and approaching zero.

[Table 3](#) indicates that the most common social media among students is WhatsApp (68%), followed by Instagram (60%). The least used is Facebook (2.5%). Regarding the purpose, the dominating purposes of social media use are: social (80%), entertainment (71%), cultural and scientific (62%), and the least is political purposes (7%).

Results also reveal that most students use social media for more than two hours a day, and that (42%) use social media at any time of the day. (37%) of the participants use social media from two o'clock in the evening till ten o'clock in the evening. According to the results, too, (65%) of the students use social media at an average level, and (5%) only use social media excessively.

Table 3. Frequencies and percent of the nature of social media use.

Category	Freq	%
Application		
Twitter	114	21.6
Facebook	13	2.5
Whatsapp	358	67.8
Youtube	154	29.2
Snapchat	191	36.2
Instagram	318	60.2
Using goals		
Scientific	328	62.1
Political	36	6.8
Commercial	120	22.7
Social	420	79.5
Entertainment	373	70.6
Sports	48	9.1
Other	11	2.1
Hour of use		
Less than 2	53	10
4-Feb	129	24.4
6-Apr	183	34.7
More than 6	163	30.9
Time of use		
6 AM -2 PM	37	7
2 PM – 10 PM	196	37.1
10 AM - 6 AM	71	13.4
Any time	224	42.4

Table 3. Contd

Degree of use		
Low	94	17.8
Average	345	65.3
High	61	11.6
Excessive	28	5.3

Table 4. The results of the Mann-Whitney test.

Dependent variable	Independent variable	Category	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Sig	E. S (dCohen)																																		
Mental health	Gender	Male	76	357.18	27146	10132	0.00	0.52																																		
		Female	452	248.92	112510				Mental health	College	Scientific	117	248.31	17487	12880	0.39	0.71	Humanities	411	266.54	122169	Degree of Social media use	Gender	Male	76	209.85	15949	13023	0.001	0.3	Female	452	273.69	123708	Degree of Social media use	College	Scientific	117	296.39	14650	11954	0.18
Mental health	College	Scientific	117	248.31	17487	12880	0.39	0.71																																		
		Humanities	411	266.54	122169				Degree of Social media use	Gender	Male	76	209.85	15949	13023	0.001	0.3	Female	452	273.69	123708	Degree of Social media use	College	Scientific	117	296.39	14650	11954	0.18	0.78	Humanities	411	260.49	125006								
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		Humanities	411	260.49	125006																																					

The results referring to the second question

Mann-Whitney test was used to detect differences in the level of mental health and the degrees of social media use according to the variables of gender and specialization. Table 4 illustrates the results of the Mann-Whitney test.

It is noted from Table 4 that there are statistically significant differences at the level of significance (0.01) in both the mental health (10132, 0.00) with large effect size, and the degree of social media use (13022.5, 0.001) with intermediate effect size due to gender in favor of males on mental health scale (They had higher mean ranks than females), and in favor of females on the DSMU scale (They had higher mean ranks than males). That is, males have higher mental health than females, and females use social networking sites more than males. The table indicates no statistically significant

differences in the degree of social media use and mental health due to specialization.

The results referring to the third question

The Kruskal-Wallis test was used to detect differences in the levels of mental health according to the degree of social media use and the number of hours. Table 5 shows the Kruskal-Wallis test results.

It is noticed from Table 5 that there are statistically significant differences in mental health due to the degree of use ($\chi^2 = 123.18$, sig = 0.00) with a large effect size. The level of mental health decreases with the increased social media use degree according to the mean ranks listed in table 5. There are also statistically significant differences in mental health due to the number of hours ($\chi^2 = 31.82$, sig = 0.00) with intermediate effect size, as

Table 5. The results of the Kruskal-Wallis test for mental health levels according to the number of hours on social media.

Variable	Category	N	Mean Rank	χ^2	df	Sig	E. S (d_{Cohen})
Degree of use	Low	94	385.37	123.18	3	0.00	>1.00
	Average	345	254.65				
	High	61	127.22				
	Excessive	28	42.56				
Hours of use	Less than 2	53	351.28	31.82	3	0.00	0.48
	4-Feb	129	280.76				
	6-Apr	183	266.04				
	More than 6	163	221.5				

Table 6. Correlation coefficients (Pearson) for the scores on the social media use scale and sub-scores on the mental health scale.

Domain	Degree of social media use
Social	-0.35**
Psychological	-0.54**
Physical	-0.47**
Academic	-0.53**
Mental health	-0.57**

** $p < 0.01$

the level of mental health decreases with increased hours of social media use.

The results referring to the fourth question

Correlation coefficients (Pearson) were calculated for the scores on the social media use scale and sub-scores on the mental health scale. It is evident from **Table 6** that there is a negative and statistically significant correlation at a level of significance (0.01) between the degree of social media use and mental health in all domains.

Social media had greater negative relation in the psychological and academic domains -0.54, -0.53 respectively, followed by the physical domain -0.47. The least valuable is the social domain -0.35. In a conclusion, mental health Negatively correlates with the degree of social media use, a correlation coefficient of -0.57, and

this value indicates a large effect size (>0.50).

Simple Linear Regression analysis was used to predict mental health through the degree of social media use (DSMU). The normal distribution of the standard values of the residues, as the significance level value of the Kolmogorov-Smirnov test, reached 0.18. The residues, thus, follow the normal distribution, and **Table 7** shows the results of the Simple Linear Regression analysis.

It is noted from **Table 7** that there is a statistical significance in the model used to predict mental health, and thus there are statistically significant differences in the mental health scale due to the degree of social media use.

The square of the modified multiple correlation coefficient, which expresses the covariance ratio between dependent and independent variables, reached (0.32). In other words, the degree of social media use explains (32%) of the variance in mental health. This value, accordingly, indicates a high Effect Size. Cohen (1992) states the size of the effect is considered small when ranged 0.02-0.12, medium when ranged 0.13-0.25, and high in the case reached 0.26 or more.

It is also evident that the entire degree of social media use helped to predict mental health if the significance level of (t) values was less than (0.05). Therefore, the equation for predicting mental health can be derived from using non-standard regression coefficients as follows:

Mental health = 154.54 - (0.82) the degree of social media usage.

DISCUSSION

The study results indicated the mental health was at a high level among the study sample. This is due to the

Table 7. The results of the Simple Linear Regression analysis.

Variable	Model				
	<i>B</i>	<i>SE</i>	β	<i>t</i>	
Constant	154.54	3.1		49.79**	
DSMU	-0.82	0.05	-0.56	-15.66**	
<i>R</i>	0.57	<i>Adj R²</i>	0.32	<i>F</i> _(1, 527)	245.17
<i>R²</i>	0.33	<i>SE</i>	14.76	<i>Sig</i>	0.00

** $p < 0.01$.

complex personality of students at this age. This developmental growth stage stimulates a struggle for independence. Moreover, they become able to form trusted and respectful relationships and qualified to improve capabilities that generate a sense of self-satisfaction (Hegazy, 2004). Zahran (2005) indicates that mental health is when individuals are psychologically, socially, and emotionally compatible and able to confront life challenges.

The level of social media use was at mid-level. This indicates that students use these sites within a reasonable limit. A considerable large percentage of students showed that their use of social media was for scientific, cultural and social purposes. Perhaps this explains the moderate use of social media and the observed increased mental health, especially in the academic domain.

On the other hand, students' responses to negative behaviours were low on the scale of social media use. For example, item watching violent and action films weighs (19%), being late and absent from lectures weighs (7%), watching pornographic clips weighs (8%), being exposed to or engaging in bullying and blackmailing weighs (6%). The results also indicated that there are differences in the degree of social media use due to gender in favour of females. Based on traditions of the study community, this may be explained by the fact that females spend most of their free time at home, however; males are freer to leave the house. Therefore, females tend to spend their spare time on social media sites more than males. In accordance, this clarifies the differences in mental health levels der in favour of males.

Regarding the relationship between the degree of social media use and the level of mental health, the results indicated a negative and statistically significant correlation. In other words, the degree of use of social media explains approximately (32%) of the mental health variations. Excessive use of these sites negatively affects the mental health of university students. Higher degrees of social media use worsen real-life interactions and lowers individuals' psychological and social compatibility.

In reverse also, when an individual lives in psychological and social deficiency, this may consequently lead him to these sites to satisfy and compensate. This result is consistent with many previous studies such as (Kirschnef, 2014; Matsue, 2014; Sullivan, 2012, Younus, 2016). This can explain the differences in mental health according to the degree of social media use and the number of hours as the mental health negatively correlated with both the degree of use and the number of hours increase.

By reviewing psychological models that explain social media use, the cognitive-behavioral model believes that some knowledge, which causes maladjustment, is sufficient to be also the cause of Internet addiction disorder. People who suffer from a lack of self-efficiency and negative self-esteem prefer interacting through social media as they assume cyber communication is safer (Benjedidi, 2016).

Individuals who suffer from stress, loneliness and depression believe they have poor social competencies, and thus they prefer social integration through the internet. They believe social media are less embarrassing and do not require courage and affection for self-expressing. They use social media as a shelter for threat-free interaction in case of oppression. Such un-relaxed, emotional discharging use of social media leads to personal, social and professional problems (Khaliwi, 2017).

The psycho-dynamic model believes early childhood experiences have a role in internet addiction. This explains the behavior of individuals who are affected by previous unconscious experiences. Defensive tricks greatly stimulate symptoms of behavioral disorders through reality denial. The Internet provides a space for those people to create their own cyber life. It is a scape from the real frustrating life to a virtual life seeking dis-remembrance and gratification (Abu Zaid, 2011).

The sociocultural model emphasizes that individuals use the internet for social communication and socialization. People look for people who are similar to them to communicate with. Supporters of this model

argue that any psychological disorder can only be understood when viewed within the cultural context (Al-Osaimi, 2010).

Limitations

However, the study had several limitations. The tools have been distributed via email. Some students just neglect their inboxes, so the deadline was extended for around 45 days to let the largest number of students participate. Another limitation was the distance learning due to the Corona pandemic which has minimized student-teachers interaction. The study was limited to A'Sharqiyah University Students in Saltant of Oman who were registered in the academic year 2020/2021.

CONCLUSION

The current study concluded that there is a negative relationship between the degree of social media use and the level of mental health among a sample of A'Sharqiyah University students, as the level of mental health decreased when the degree of use of social media increased.

The current study recommends designing counseling programs (perhaps remote counseling) for university students, especially those who overuse social media sites to reduce the negative impact on their mental health. Counseling programs are an urge these days during the Corona pandemic since we follow instructions of social distancing, distance education and sometimes lockdowns.

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REFERENCES

- Abu Zaid A (2011).** Misuse of the Internet and its Relation to Violence and Social Skills, *Journal of Arab Studies in Psychology*. 10: 155-213.
- Al-Ayer M (2010).** Mental Health of Mothers with Down syndrome in the Gaza Strip and its Relation to Some Variables, Unpublished Master Thesis, College of Education, Islamic University, Gaza, Palestine.
- Al-Khalidi A (2000).** Reference in Mental Health, Arab Publishing and Distribution House, Cairo.
- Al-Osaimi S (2010).** Internet addiction and its relationship to psychosocial compatibility among high school students in Riyadh, an unpublished master's thesis, Naif Arab University for Security Sciences, Saudi Arabia.
- Al-Quraiti A, Al-Shahas A (1992).** The Mental Health Scale for Youth, Egyptian-Saudi Standards, Anglo-Egyptian Library, Cairo, Egypt.

- Al-Sharifian, A, Al-Sharifian, N (2014).** Prediction of mental health through psychological and demographic variables among Jordanian university students, *Journal of King Khalid University for Educational Sciences*. 21(1): 17-54.
- Benjedidi S (2016).** The relationship of the level of narcissism to addiction on the Facebook social network of the Algerian teenager. Unpublished Ph.D. thesis, Khudair University, Algeria.
- Cohen JA (1992).** Power primer. *Psychological Bulletin*. 112:155-159.
- Hegazy M (2004).** Mental Health: An Integrative Dynamic Perspective of Development at Home and School, Arab Cultural Center, Casablanca.
- Joma A, Madi I, Arvaisis O (2019).** The Role of Civil Society Organizations in Promoting the Psychological Well-Being of Children in Time of Emergency: A Field Study on Children Attended to Psychosocial Support Programs in Civil Institutions in Rafah Governorate, the Seventh International Conference entitled "Mental Health for Palestinians without Borders" Gaza.
- Kaddoura S (2017).** The use of social networking sites and its relationship to mental health and some personality traits among Gezira University students, unpublished Ph.D. thesis, University of Khartoum, Sudan.
- Kalpidou M, Costin D, Morris J (2011).** The relationship between Facebook and the well-being of undergraduate college students. *Cyberpsychology, Behavior, and Social Networking*. 4(14): 183-189.
- Khalawi A (2017).** Psychological disorders related to social networking sites among university students, *Journal of the Islamic University for Educational Studies*. 25(4): 61-101.
- Kirschnef C (2014).** Impact of social networks on mental health: A case report and literature review. Clinical Services Department National Institute of Psychiatry' Ramon de la Fuente Muniz, Mexico City, Mexico. Abstracts of the 20th European Congress of Psychiatry, 27, Supplement 1, p.1.
- Matsue C (2014).** Psychological predictors of addictive social-networking sites use: The case of Serbia. *Computers in Human Behavior*. 32(1):229-234.
- National Center for Statistics and Information (2020).** Opinion Poll on Social Media in the Sultanate of Oman, available through the link: <https://www.ncsi.gov.om/Pages/NCSI.aspx>.
- Nomar M (2012).** The use of social media and its impact on social relations: a study of a sample of Facebook in Algeria, unpublished master's thesis, University of Lakhdar, Algeria.
- Obar AJ, William S (2015).** Social media definition and the governance challenge: An introduction to the special issue. *Telecommunications Policy*, 39(9):745-750.
- Routley N (2018).** Visualizing the Social Media Universe in 2018, Online available from: <https://www.visualcapitalist.com/social-media-universe>.
- Ryff C, Keyes C (1995).** The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*. 69(1):719-727.
- Saudi A (2014).** Facebook addiction and its relationship to the university student's family compatibility, a study on a sample from Bashar University, *psychological and educational studies*. 19(13): 78-99.
- Sullivan S, Paradise A (2012).** Visible Threats? **Al-Quraiti A, Al-Shahas A (1992).** The Mental Health Scale for Youth, Egyptian-Saudi Standards, Anglo-Egyptian Library, Cairo, Egypt. 15(1):55-61.
- Younus B (2016).** Social Media Addiction and its Relation to Psychological Disorders among University Students in Gaza Governorate, Unpublished Master Thesis, Al-Azhar University, Palestine.
- Zahrán H (2005).** Studies in Mental Health and Psychological Counseling. The World of Books, Cairo.