



Naif Arab University for Security Sciences

Arab Journal for Security Studies

المجلة العربية للدراسات الأمنية

<https://nauss.edu.sa><https://journals.nauss.edu.sa/index.php/ajss>

AJSS

## The Threats of Excessive Internet Use among Youth in Khartoum State: Can Islamic Practices Help them?



CrossMark

تهديدات استخدام الإنترنت المفرط بين الشباب في ولاية الخرطوم، هل يمكن أن تساعد الممارسات الإسلامية؟

سعاد موسى أحمد بخيت\*

قسم علم النفس الصحي، مدرسة علم النفس، جامعة الأحفاد للبنات، السودان

Souad Mousa Ahmed Bakhet\*

Health Psychology Section, School of Psychology, Ahfad University for Women, Sudan

Received 10 May, 2020; Accepted 01 Oct, 2020; Available Online 20 Nov, 2020

### Abstract

Internet addiction is defined as any compulsive online behavior that interferes with an individual's normal living, causes severe stress, and threatens family, friends, loved ones, and the work environment.

This study aimed to reveal the extent of excessive internet use among Sudanese youth in Khartoum State. Furthermore, the prevalence of religious practices among this group. In Sudan, there are many internet users and internet cafés, especially in Khartoum State. Islam is a religion that teaches the virtue of moderation at both an individual and a social level. Islam views the natural resources of the world, and indeed human life itself, as things entrusted to us by Allah. Accordingly, every individual is accountable for how he or she uses these resources.

This is a descriptive study that involved 96 male and female youth in Khartoum state. The study sample taken from 15 different internet cafes, selected randomly. A 38 open-ended questionnaire used to collect the data. Of these, 16 questions related to standards on the excessive use of the internet, and 22 related to demographic information and the nature and extent of the internet use.

The most important results are as follows: There is no excessive use of the internet, among Sudanese youth whereby only

### المستخلص

يعرف إدمان الإنترنت بأنه أي سلوك قهري مرتبط بالإنترنت، يتداخل مع حياة الفرد العادية، ويسبب ضغوطاً شديدة وتهديدات للعائلة والأصدقاء والأحباء وبيئة العمل، ويعرف بالاعتماد على الإنترنت واستخدامه بصورة مرضية قهرية مع الاضطراب في إدمانه. وفي السودان هناك العديد من مستخدمي ومقاهي الإنترنت خاصة في ولاية الخرطوم؛ ما قد يعود بالآثار السلبية على الأفراد الذين يستخدمونه بكثرة.

وقد هدفت هذه الدراسة إلى اكتشاف استخدام الإنترنت المفرط بين الشباب السوداني في ولاية الخرطوم وتهديده لهم ولأسرهم. علماً بأن الإسلام هو دين الوسطية والاعتدال على المستويين الفردي والجماعي. وينظر إلى الموارد الطبيعية للعالم، بل والحياة البشرية نفسها، على أنها أمانة من الله. وبناء على ذلك، فإن كل فرد يكون مسؤولاً عن كيفية إنفاقه لهذه الموارد. ومع ذلك، فإن الإسراف يعتبر من الأفعال المحرمة في الإسلام.

كما اشتملت الدراسة على عينة مكونة من 96 من الذكور والإناث من الشباب في ولاية الخرطوم موجودين في 15 مقهى مختلفاً تم اختيارهم بشكل عشوائي. مع طرح مجموعة من الأسئلة المغلقة استخدمت كأداة لجمع المعلومات؛ حيث تكونت من 38 سؤالاً يمثل 16 منها معايير الاستخدام المفرط للإنترنت، و22 سؤالاً حول المعلومات الديموغرافية وطبيعة ومدى استخدام

**Keywords:** Security Studies, Excessive Internet Use, Sudanese Youth, Islamic Practices, Khartoum State.

**الكلمات المفتاحية:** الدراسات الأمنية، تهديدات الاستخدام المفرط للإنترنت، الشباب السوداني، الدين الإسلامي، ولاية الخرطوم.



Production and hosting by NAUSS



\* Corresponding Author: Souad Mousa Ahmed Bakhet

Email: [suoadm.osmanh@gmail.com](mailto:suoadm.osmanh@gmail.com)

doi: [10.26735/PFFS5609](https://doi.org/10.26735/PFFS5609)

14% of the participants use the internet excessively. Most of them are in their twenties, males tend to be more vulnerable to excessive internet use than females, and most of the participants adhered to Islamic practices.

Preventive steps should be taken by all internet users in order to maintain an adequate level of use, and parents and educators should direct internet users to adhere to Islamic teachings in this regard.

## 1. Introduction

The internet is a global linking of computers that allows the transfer of information. Established in the early 1960s, the United States of America, the Department of Defense used it for military purposes. Since then, the improvement of internet technology and content has provided an extraordinary level of public accessibility to a wide range of communication forms. The use of the internet has increased dramatically. In 2010, the world's internet use was 28.7% of the population. Between 2000 and 2010, the rate of growth of internet use was 44.8%. There has been a very large and rapid increase in the use of the internet worldwide, and it is expected to continue due to its use becoming an integral part of everyday life. The internet provides tremendous educational benefits; however, excessive internet use can lead to negative outcomes such as poor school performance and social isolation (Johansson, 2004).

There are several benefits when using the internet, these include access to information, worldwide access to news and events, and interpersonal communication through email. However, along with the phenomenal growth of the internet and its use, there has been a growing concern worldwide regarding the risks associated with internet overuse. This is particularly concerning for the youth, as they are more vulnerable than mature adults are to the negative impacts of the internet. These include lowered concentration levels, lack of sleep, poor academic attendance and performance, vision problems, and a wide range of behavioral problems (Mohammed, 2018).

With the growing relevance of the internet as a tool for communication and entertainment, researchers have examined the effects of an individual's psychological factors and motives for media use on their excessive internet use (Shin, 2011).

Excessive internet use characterized by excessive or

الإنترنت. والنتائج الرئيسية المهمة هي: 14% من المشاركين هم من مفرطي الاستخدام ومعظمهم في سن العشرينيات، تميل الإناث إلى أن يكن أكثر عرضة للاستخدام المفرط للإنترنت من الذكور. وأوصت الدراسة بضرورة أن يتخذ جميع مستخدمي الإنترنت خطوات وقائية من أجل الحفاظ على معدل استخدام مناسب، كما يجب على الآباء والمعلمين توجيه مستخدمي الإنترنت والاستفادة من التعاليم الإسلامية.

poorly controlled perceptions, urges, or behavior regarding computer use with internet access can lead to impairment or distress (Tsumura, 2018). Internet dependency, internet compulsivity, pathological internet use and internet addiction disorder are some other negative effects (Young, 1998; Diagnostic A. P. A., 2013).

Research has shown that excessive use of the internet has negative outcomes and may threaten the health of an individual. It is obvious that the exaggeration of any behavior is not healthy and may cause harm, even if the behavior is beneficial such as food intake.

Internet use is increasing, and most students have their health affected from prolonged use of the internet; their academic, social life and sleep are affected. There has been an explosive growth in the use of internet in the last decade. This results in serious problems in many areas (Altayeb et al., 2010).

The excessive use of the internet can lead to several difficulties. While the internet provides potential advantages for users in terms of academic support, sharing feelings and ideas, and giving freedom in personal expression; it also wastes time, creates a platform for antisocial behavior, and causes relationship problems. Excessive use can manifest in absenteeism and academic failure (Akar, 2015). This present study will contribute to the literature on excessive internet use by exploring excessive use behavior among the youth and incorporating the significant role of a system of recommendations in internet applications.

A cross-sectional study conducted at three medical colleges in Omdurman (Sudan) by Altayeb, et al. (2019) that applied a standard questionnaire based on Young's internet addiction test. It used to collect data from 272 medical students. The results showed that the prevalence of internet addiction found to be 80.15% (95% CI: 75-85). Most students used the internet for chatting and academic purposes. There was no significant association



between gender and internet addiction ( $p=0.360$ ), but there was an association between duration of daily internet use and the level of internet addiction ( $p<0.001$ ). Most students' academic performance was affected, and 74.7% (95% CI: 9-80) felt depressed when not online. Most students preferred staying on the internet more than sitting with parents or friends. The most observed side effects of prolonged use were blurring of vision 55.9% (95% CI: 50-62) and headache 47.8% (95% CI: 42-54).

Another study among Sudanese doctors and medical students found that out of 102 hospital doctors and 123 medical students in Khartoum, more doctors [84.3%] use the internet than students (78.9%. Half of consultants [55.0%] used the internet daily, compared with only 18.2% of junior doctors. Many consultants and junior doctors rated their abilities as poor (60.0% and 53.1%, respectively). One-third of students 33.3% used the internet only for personal and not for academic purposes. (Ahmed & Abdallah, 2008).

One of the outstanding features of the Islamic worldview is a balanced and moderate outlook on life and its challenges. Islam as religion recognizes that human beings have natural needs, and it prescribes ways of fulfilling them without allowing the desires for fulfilling these needs to take control of one's life. The Glorious Quran says "O Children of Adam! Wear your beautiful apparel at every time and place of prayer: Eat and drink: But waste not by excess, for Allah loves not the wasters." (Quran 7:31)

The spirituality perspective suggests that one of the

main sources of an individual's strength is their spirituality, which can be used to help them face their problems and obstacles (Sermabeikian, 1994) mentioned by (Masroom, 2013).

This study aimed to explore excessive internet use among youth in the state of Khartoum and to draw attention to the importance of utilizing Islamic practices to overcome this behavior.

#### The study hypothesized the following:

- Excessive internet use exists among Sudanese internet users.
- Males are much more involved in using the internet than females.
- The prolonged use of the internet threatens mental and physical health.
- Excessive internet users among the youth have less religious tendencies.

## 2. Method

### Participants

The population of this study are the youth who are internet users in internet cafés the state of Khartoum (more than 103 cafés). A sample of 96 internet users selected randomly from internet cafés in the state of Khartoum (Khartoum, Omdurman and Khartoum North), two-internet cafés from each city.

### Tools

**Table 1 - Demographic characteristics of participants**

	Female		Male		Total	
	No.	%	No.	%	No.	%
Age						
years 20 <	2	5.70	8	14.50	10	11.1
years 20-29	32	91.40	32	58.20	64	71.1
years 30-39	1	2.90	15	27.30	16	17.8
Total	35	100	55	100	90	100
Profession						
	No.	%	No.	%	No.	%
Students	27	77.20	24	43.60	51	56.7
Employee	6	17.10	18	32.70	24	26.7
Others	2	5.70	13	23.70	15	16.7
Total	35	100	55	100	90	100



A 38 items questionnaire developed by the researcher and used to collect the data. There were 38 questions; 16 of them represented the criteria for excessive use of the internet and 22 related to demographic information and the nature and extent of the internet use. The validity and reliability was tested by the correlation coefficients between the components of the scale items all of them are indicative at the level of significance (0.01) or less, the

internal consistency of the items ranged between 0.406-0.682. Reliability statistics calculated using Cronbach's Alpha and the total items score was 0.93 indicating strong reliability.

#### Procedure

Participants asked to answer the questions voluntarily and return them back to the internet café administration. There were 96 surveys distributed in a three-week

**Table 2 - Excessive internet use criteria**

Criteria	Female		Male		Total	
	No.	%	No.	%	No.	%
Light use	16	45.7	31	56.40	16	17.8
Normal use	12	34.3	18	32.70	30	33.3
Excessive use	7	20	6	10.90	13	14.4
Total	35	100	55	100	90	65.6

**Table 3 - Duration of using internet**

	Female		Male		Total	
	No.	%	No.	%	No.	%
months 6 <	2	5.70	2	3.60	4	4.4
year 1	2	5.70	4	7.30	6	6.7
years 2	3	8.60	8	14.50	11	12.2
years 3	2	5.70	10	18.30	12	13.3
years 4	2	5.70	1	1.80	3	3.3
years 5	10	28.60	8	14.50	18	20
years 5>	14	40.00	22	40.00	36	40
Total	35	100	55	100	90	100
Frequency	Female		Male		Total	
	No.	%	No.	%	No.	%
Rarely	5	11.20	3	5.50	8	8.9
Time a month	7	20.00	8	27.30	15	16.7
Time a week	12	34.30	23	40.00	35	38.9
Daily	11	34.50	21	27.20	32	35.6
Total	35	100	55	100	90	100



period. Ninety- one were valid responses (35 females and 55 males); 6 of the respondents did not answer all the questions. The total participants' scores were calculated and categorized into 0 - 09 light use, 10-16 normal use, 17-32 excessive internet use.

Participants who usually answered 10 or more of the items mentioned classified as excessive internet users.

### 3. Result

The demographic characteristics of the sample shown in table 1 indicates that the majority of the sample 71% are between the age 20-29 and 56.7 are students. Ales constituted 61% of the sample.

The internet usability results indicated that 33% of the total cohort group are normal users of the internet and that 14.4% are excessive users (Table 2). Only 20% of the females showing excessive internet compared to 10% among males. Both male and females have tendencies for "light use" of the internet (56.40 and 45.7% respectively).

The Duration of using internet in table 3 shows that the majority have been using the internet for more than 5 years and that 35.6% are daily users. Both male and female internet usability were comparable although no statistical differences were calculated however the results indicated that 40% of both gender have been using the internet for more than 5 years and almost 34% of the female and the male sample are daily internet users.

The third hypothesis stated that the prolonged use of the internet threatens mental and physical health; table 4 shows that most of youth internet users spent from 1-2 hours/day, female are 48.6% and 40% are male. As for longer use that is more than 8 hours/day only 3% of the

females and 5% of the male reported this extent of use.

As for the sample personal perception of excessive internet use the results in table 5 indicated that 72% of the total sample are, "sometimes" need to use the internet excessively. Moreover, 51% reported Failure to control internet use; 20% are female and 15% are male respectively.

The problematic internet use included items of (Increase amount of time to achieve satisfaction Feel restless when stopping internet use, excessive use and inability to control internet use) the results shows that 37.5% of females and 27% of males feel the need to increase their internet sessions to achieve the same level of satisfaction. 30% of females and 16.5% of males usually feel restless when they stop using the internet constantly. 36.4% of females sometimes feel restless, and 55.3% of males feel so. While 49.9% of females and 28% of males never feel restless.

As for the mental and physical status among internet users, it covered complaints related to physical health (headache, pain, and discomfort) as well as psychological distress. The results indicated in general decreased levels of complaints among internet users as most of the sample reported "sometimes" having complaints that the majority of the sample (74.5%) had never experienced a decreased academic performance. 72% had never lost significant relationship and 46% experienced sometimes unpleasant moods (Figure 1)

As for the religiosity and practicing Islamic faith table 6 shows that 34.3% of females and 15.3% of males are usually regular in performing their worship practices. 42.5% of females and 67.4% of males perform them sometimes, while 17.2% of females and 27.3% of males never perform their worships practices regularly.

**Table 4 - Extent of using internet**

Number of hrs	Female		Male		Total	
	No.	%	No.	%	No.	%
hour/day 1<	2	5.70	3	5.50	3	3.3
hours/day 1-2	17	48.60	22	40.00	39	43.3
hours/day 2-4	9	25.70	15	27.30	24	26.7
hours/day 4-6	6	17.10	7	12.70	13	14.4
hours/day 6-8	0	0	5	9.0	5	5.6
hours/day 8 >	1	2.90	3	5.5	4	4.4
Total	35	100	55	100	90	97.8



**Table 5 - Problematic internet use**

Increase amount of time to achieve satisfaction	Female		Male		Total	
	No.	%	No.	%	No.	%
Usually	9	37.50	15	27.30	24	26.7
Sometimes	17	41.50	24	44.50	41	45.6
Never	9	36.00	16	28.20	25	27.8
Total	35	100	55	100	90	100
<b>Feel restless when stopping internet use</b>	Female		Male		Total	
	No.	%	No.	%	No.	%
Usually	6	30.00	14	16.50	20	22.2
Sometimes	12	36.40	21	55.30	33	36.7
Never	17	45.90	20	28.20	37	41.1
Total	35	100	55	100	90	100
<b>Excessive use of internet</b>	Female		Male		Total	
	No.	%	No.	%	No.	%
Usually	10	28.60	6	17.50	16	17.8
Sometimes	22	62.80	43	65.00	65	72.2
Never	3	8.60	6	17.50	9	10
Total	35	100	55	100	90	100
<b>Failure to control internet use</b>	Female		Male		Total	
	No.	%	No.	%	No.	%
Usually	7	20.00	9	15.30	16	17.8
Sometimes	14	40.00	32	58.20	46	51.1
Never	14	40.00	14	26.50	28	31.1
Total	35	100	55	100	90	100.0

#### 4. Discussion

Although only 14% of young Sudanese reported excessive internet use, one needs to be cautious in the interpretation of the results, as the lower rates may have resulted from the use of self-reported scale, which might led to underestimations'. The results further indicated that most of excessive internet users are students. The students find themselves easily involved in using the internet, starting with searching for information and gradually ending up with a lured to explore the cyber world in-

cluding its social activities this result is in line with study conducted by Anderson (2001) assessing the prevalence of internet use among college students.

Males were more involved in using the internet than females. This is understandable, taking in consideration that male users have greater opportunities to access the internet café, their chance stay late at night is much easier than for females, several studies have found similar results that internet use or problematic use seems to be dominated by male users (Weiser, 2000).



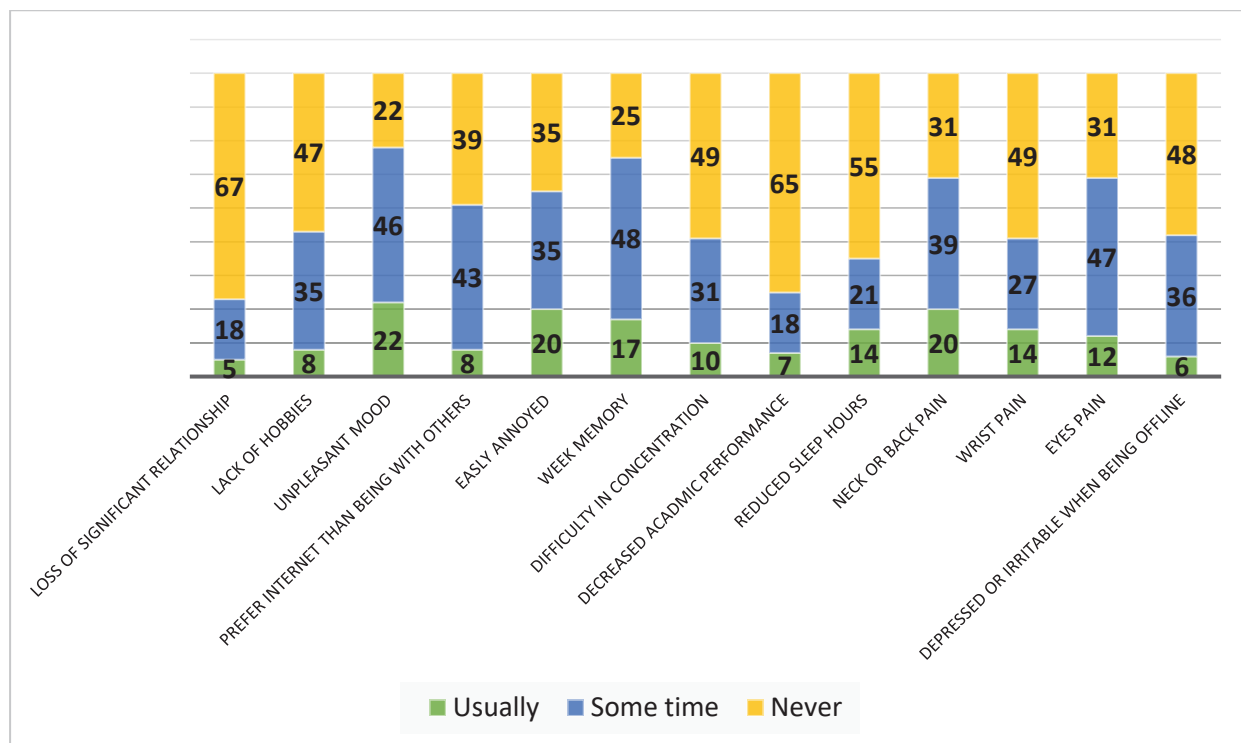
**Table 6 - Religiosity and performing the Islamic practices**

	Female		Male		Total	
	No.	%	No.	%	No.	%
Usually	12	34.30	9	15.30	21	23.3
Sometimes	17	42.50	29	67.40	46	51.1
Never	6	17.20	17	27.30	23	25.6
Total	35	100	55	100	90	100

Concerning the regularity in performing the worship practices, which assumed to lessen the excessive internet use, the spiritual perspective of the study showed that 25.5% of both males and females are never regular in doing the worship practices. This study also detected that prolonged use of the internet threatens mental and physical health. Most internet users, however, classified as excessive users because they use the internet several times a week on daily basis for 2 hours per session. One can spend the whole workday surfing the internet and then conclude the same day with a late login just before dawn. This consequently affects the person's standard amount of sleep (6-8 hours) and threatens his/her performance

on the next day. Such sleep deprivation causes excessive fatigue, often making academic or occupational functioning impaired and may decrease one's immune system, leaving the individual vulnerable to disease. Suhail & Bargees, (2006) have identified several negative effects of excessive internet use on undergraduate students in Pakistan although the country context is different nevertheless its indicative that problematic internet use is a universal phenomenon.

The individuals in this study suffered body aches, pain in the neck and back (40.0%) or pain in the forearms and wrists (60.0%). These pains are due to the continuous pressure caused by prolonged periods without movement



**Figure 1 - Mental & physical Status of Sudanese Internet Cafe Users**



or with limited movement in front of a computer screen. This may cause muscular tension that may last for life (Eltayeb et al. 2011). Listening to downloaded materials by wearing earphones made individuals dramatically separated from the real world, this was also observed by the study conducted by Altayeb et al. (2019) looking in to internet addiction among medical students in three universities in Sudan.

These effects negatively may affect the individuals' role in the family and the community as indicated by the sample who complained that the use of internet caused a loss of their significant relationships, and decreased their performance. This supported by many studies conducted since the late 1990s on the excessive use or problematic use of the internet (Kardefelt-Winther, 2014, Quiñones-García & Korak-Kakabadse, 2014; Cash et al., 2012)

In Sudan, social life is full of joy and chatting people love to be with others as the most preferred social activity. However, the rhythm and style of life has started to change dramatically. As consequence, interaction among people has started to decrease, especially among the young generations. Thus, they compensate this by using mobiles, the internet and by doing other such individualistic activities. Making use of the current social system and Islamic religious tendencies in the Sudanese population may help a lot in preventing and managing excessive internet use. This could be achieved by evaluating the religious state of the youth and organizing a program based on the Islamic worship practices and rituals (prayer, fasting, charity, helping others, being close to parents and relatives, volunteer work, and good behavior).

Using ideas and knowledge from the Qur'an in psychotherapy is important. Badri, (2000), said that in the field of medical and psychological interventions that specialists should not adopt an ethically non-judgmental attitude or stance, which condones or does not care to point out the immoral aspects of promiscuity, homosexuality, drugs addiction and alcohol intake. If we look to Islamic teachings and worship, they not only practiced as a habit, but they have deep and positive effects on the human being. Furthermore, performing these actions of worship in a group will be even more positive. In Sudanese societies in the past people tended to perform their religious practices in groups, so the chances for excessive internet use were rare. Now a day, individualistic habits and selfishness has penetrated Sudanese societies and this has caused behavioral disturbances.

## 5. Conclusion and Recommendation

Excessive use of the internet, can lead to addiction

disorder, is a relatively new worldwide phenomenon, which has recently come to peoples' attention (Akar, 2015). The study found that excessive internet use is not present among Sudanese youth. Male reported higher percentages of excessive use compared to females. Body aches and sleep deprivation attention span, memory functioning and concentration were also reported.

Religion and culture are very important factors in modifying human behavior. Religion can prevent, improve and enhance an individual's psychological health. The Holy Quran is full of knowledge particularly stories, proverbs, and wisdom that has deep effects on human behavior. Therapists should be confident and equipped with religious knowledge in order to use it in behavior modification, in accordance to each individual background (Ahmed, 2013).

Allah the creator of the human beings recognizes their needs and guides them to satisfy these needs adequately without hurting others. Mental disturbances occur because of maladjustment and inability of adaptation to various stressful life events that all human beings experience during their lifetime and internet overuse constitute a new threat.

The study recommends that preventive steps should take by all internet users in order not to use the internet excessively. Moreover, treatment of excessive internet users is possible if they are aware of their problem and willing to manage it.

The protection of cultural security against threats is not only the responsibility of the government but also the family, civil society organizations, educational institutions and the media all those bodies must work together to protect the youth and children. Experts in education, psychology, and computer related science should raise the awareness of people towards this problem after becoming fully acquainted with it themselves.

## References

### Quran

- Ahmed, A. M., Yousif, E., & Abdalla, M. E. (2008). Use of the Internet by Sudanese doctors and medical students. *EMHJ-Eastern Mediterranean Health Journal*, 14 (1), 134-141, 2008.
- Ahmed, S., & Amer, M. M. (Eds.). (2013). *Counseling Muslims: Handbook of mental health issues and interventions*. Routledge.
- Akar, Filiz. (2015). Causes and consequences of excessive internet use among Turkish adolescents, Eurasian





- Journal of Education, volume 15.issue 69.pp 35- 56.
- Altayeb, S. M. A., Shumo, B. E., & Malik, E. M. (2019). Internet addiction among medical students in three universities (Omdurman Islamic University, University of Science and Technology and Ahfad University for Women). Omdurman Locality-Sudan 2016. Khartoum Medical Journal, 11(3).
- Anderson, K. J. (2001). Internet use among college students: An exploratory study. *Journal of American College Health*, 50(1), 21-26.
- Badri, M. (1999). The AIDS crisis: A natural product of modernity's sexual revolution. *Human Behavior Academy*.
- Cash, H., D Rae, C., H Steel, A., & Winkler, A. (2012). Internet addiction: A brief summary of research and practice. *Current psychiatry reviews*, 8(4), 292-298.
- Diagnostic, A. P. A. (2013). *Statistical manual of mental disorders,(DSM-5)* Washington. DC: Author.
- Eltayeb, S. M., Staal, J. B., Khamis, A. H., & de Bie, R. A. (2011). Symptoms of neck, shoulder, forearms, and hands: A cohort study among computer office workers in Sudan. *The Clinical journal of pain*, 27(3), 275-281.
- Johansson, A., & Götestam, K. G. (2004). Internet addiction: characteristics of a questionnaire and prevalence in Norwegian youth (12–18 years). *Scandinavian journal of psychology*, 45(3), 223-229.
- Kardefelt, Winther, D. (2014). Meeting the unique challenges of assessing Internet gaming disorder.
- Masroom, M. N., & Siwok, S. R. (2013). *Spiritual Dimensions in Mental Health: A Preliminary from Islamic Overview*.
- Mohammed Manal Bilal "Internet Addiction Among Secondary School Students In Sudan 2016." *IOSR Journal of Computer Engineering (IOSR-JCE)* 20.1 (2018): 16-22
- Quiñones-García, C., & Korak-Kakabadse, N. (2014). Compulsive internet use in adults: A study of prevalence and drivers within the current economic climate in the UK. *Computers in Human Behavior*, 30, 171-180.
- Sermabeikian, P. (1994). Our clients, ourselves: The spiritual perspective and social work practice. *Social Work*, 39(2), 178-183.
- Shin, D. H., & Shin, Y. J. (2011). Why do people play social network games?. *Computers in Human Behavior*, 27(2), 852-861.
- Suhail, K., & Bargees, Z. (2006). Effects of excessive Internet use on undergraduate students in Pakistan. *CyberPsychology & Behavior*, 9(3), 297-307.
- Tsumura, H., Kanda, H., Sugaya, N., Tsuboi, S., Fukuda, M., & Takahashi, K. (2018). Problematic internet use and its relationship with psychological distress, insomnia, and alcoholism among schoolteachers in Japan. *Cyberpsychology, Behavior, and Social Networking*, 21(12), 788-796.
- Weiser, E. B. (2000). Gender differences in Internet use patterns and Internet application preferences: A two-sample comparison. *Cyberpsychology and behavior*, 3(2), 167-178.
- Young, K. S., & Rodgers, R. C. (1998). Internet addiction: Personality Traits Associated with Its Development, paper presented at the 69th annual meeting of the Eastern Psychological Association.

