



---

## Effecting of Internet Addiction among Secondary School Student in Basrah City

Luayabdulwahid Shihab, Zahraa Abbas Abdulnabi and Tariqessa  
*Nursing College Basrah University, Iraq*

---

**Key words:** Internet, addiction, effect, student, secondary

**Abstract:** Internet addiction is considerable a disorder in need further study and it is increasing in our society. This addiction can lead to psychological and health problems such studies are lacking in Iraq especially in Basra city. Assess the prevalence of internet addiction among the secondary school in Basra city. Awareness of the student about risk of the internet addiction and follow special strategies to stop IA. Descriptive , cross sectional study carry out to assess internet addiction in secondary school in Basra city. The study was conducted at university of Basra College of Nursing 2018-2019. The sample of study (363) where number of male (216) and number of female was (147) instrument of this study was self-administered questioner for internet addiction is adapted and modified from the world wide use of Internet Addiction test (IA) conation of 28 items as proposed by Dr. Kimberly Young (a licensed psychologist and internationally known expert on internet addiction), also known as internet addiction test. Questioner consist of two part: Part one: demographic data consist of six variable include (age, sex, class, number of family member, arrangement of student in her or his family, address) to identified relationship between certain demographic data and level of internet addiction in students Part two: Composed of twenty eight question about internet addiction to evaluate level of internet addiction in secondary school student.

**Corresponding Author:**

Luayabdulwahid Shihab  
*Nursing College Basrah University, Iraq*

Page No.: 58-65

Volume: 19, Issue, 3, 2020

ISSN: 1682-3915

Asian Journal of Information Technology

Copy Right: Medwell Publications

---

### INTRODUCTION

Internet has become an essential part of our life. Through internet and Social Networking Sites (SNS), one can easily share thoughts, experiences with other person or can contact someone who is just a click away. Social networking sites has become an easy way to communicate and made possible to chat with friends who live far away<sup>[1]</sup>. Nowaday's young generation is totally depends upon social networking sites, most common sites used by

them are Google, YouTube, Yahoo, Gmail, Face book, Whatsapp, Messenger, Hike, Twitter etc .Youngsters almost depends on SNS which helps them to be in touch with family and friends<sup>[2]</sup>. Researches shows that younger population is a high risk group for internet addiction, reasons might be lack of supervision and guidance during the use of internet<sup>[3]</sup>. Since, they are immature ,both physically and psychologically, they may develop more serious complications than other age groups regarding the negative impact of the internet addiction<sup>[4]</sup>. Internet

addiction may refer as inability to control the desire of using internet, it can be characterized by preoccupation with internet, excessive use of internet, feeling of restlessness and depression when offline, lies to family members, poor academic performance by students and poor dietary habits. Research study shows that 44.8% school going children are average users where as 14.6% were internet addicted<sup>[5]</sup>. Measuring internet addiction was a challenge. Goldberg developed the Internet Addictive Disorder (IAD) Scale by adapting the DSM IV. Brenner<sup>[6]</sup>. Developed the Internet Related Addictive Behavior Inventory (IRABI) comprising of 32 true and false questions. Young initially available test whose psychometric properties have been tested by Widyanto and McMurrin<sup>[7]</sup>.

**Importance of project:** Internet addiction is considerable a disorder in need further study and it is increasing in our society. This addiction can lead to psychological and health problems such studies are lacking in Iraq especially in Basra city.

**Goals of project:**

- Assess the prevalence of internet addiction among the secondary school in Basra city
- Identify positive and negative impact of internet use on secondary schools student's
- Find the relationship between internet addiction and demographic characteristics
- Find the relationship between internet addiction and school performance of students
- Identify preferred type of internet use

**Statement of project:** Identified the internet addiction among the secondary schools in Basra city.

**Literatures of review:** This chapter discusses the literature relating to Internet use and IA. The first section introduces the background of the Internet, identifies Internet use worldwide and identifies the prevalence of IA. The second section discusses the definitions of addiction and their relevance to IA.

Internet is one of the most widely accessible media in the world, it has provided better opportunities for communication, information and social interaction . India ranks 4th among the highest number of internet users only after China, US and Japan<sup>[8]</sup>. Adolescents are required to learn about it for academic and recreational reasons however, excessive and undisciplined use by individuals has led to the emergence of the concept of "Internet Addiction (IA)" among adolescents. Internet Addiction which is included in section 3 of the 5th edition of the DSM (DSM-5) (Emerging Measures and Models) is also gaining progressive attention by public opinion. And

the meaning of addiction according to the University of Cambridge is an inability to stop doing or using something, especially, something harmful. And Although a standardized definition of Internet addiction has not been uniformly agreed upon, some researchers define the Internet addiction was defined by preoccupation with the use of the internet, repetitive thoughts about limiting and controlling the use of the internet, failure to control the desire of access to the internet, continuous use of the internet despite the impairments at various levels of functionality, spending gradually increasing periods of time on the internet, seeking use of the internet in the case of inability to access and uncontrolled desire to get access to the internet<sup>[9,10]</sup>. Addiction to the Internet has resulted in negative impact on academic performance family relationships and emotions for adolescents. This can also have a negative impact on identity formation and may negatively affect cognitive functioning, engagement in risky activities and inculcate poor dietary habits Internet Addiction is reported to be associated with depression and Attention Deficit Hyperactivity Disorder (ADHD)<sup>[11]</sup>. The term 'internet addiction' was first proposed by Ivan Goldberg for pathological internet use in 1993<sup>[12]</sup>.

**Categories of internet addiction:** Young classifies internet addiction into five different types of behaviors.

**Cybersexual addiction:** The addicts spent a lot of time in adult websites for cybersex and cyberporn.

**Cyber-relationship addiction:** The addicts involved heavily in online relationships. Net compulsions the addicts exhibited obsessive online gambling and shopping. They are compulsive online gamblers and shopaholics. Information overload: the addicts displayed compulsive web surfing and database searches. Computer game addiction: the addicts were obsessive online game players<sup>[13,14]</sup>.

**Causes of internet addiction:** No one knows what causes a person to be addicted to the Internet but there are several factors that have been proposed, whenever Internet addicts feel overwhelmed, stressed, depressed, lonely or anxious, they use the Internet to seek solace and escape. Studies from the University of Iowa show that Internet addiction is quite common among males who are suffering from depression.

Certain people are predisposed to having a computer or internet addiction such as those who suffer from anxiety and depression. Their lack of emotional support means they turn to the Internet to fill this need. There are also those who have a history of other types of addiction, such as addictions to alcohol, drugs, sex and gambling. Even being stressed and unhappy can contribute greatly to the development of a computer or internet addiction.

People who are overly shy and cannot easily relate to their peers are also at a higher risk of developing a computer or Internet addiction.

**Negative effect of the internet addiction:** When internet use becomes excessive and pathological, there could be ill-health effects on the adolescents such as impaired psychological well-being less peer and family interaction, poor academic performance and impediment to achievement of psychosocial developmental tasks<sup>[15]</sup>. A study on the adversities of internet overuse by the Korean national youth commission in school-going children indicated that as many as 27.6% children and adolescent suffered deterioration in their 21.1% grades. Up to 23.7% of them experienced disruption in their lives, 10.6% experienced social isolation and as high as 13.4% of adolescents presented with school refusal. Violence at home occurred in 7.1% of the adolescents who overused the internet. Typically effecting more boys than girls, suffers tend to have behavioral problems such as hyperactivity, conduct disorder and worse overall psychosocial adjustments than their peers<sup>[16]</sup>. Correlations between internet use (including online gaming) and negative outcomes such as obesity, aggression and poor school outcomes have also been investigated<sup>[17, 18]</sup>. Furthermore, excessive use of internet can also impede one's physical health such as causing back pain, eye strain and carpal tunnel syndrome<sup>[19]</sup>. Cardiopulmonary related deaths were also reported in the most severe cases.

**Prevention in internet addiction:** With most behavioral and addiction problems, prevention is key to reducing incidence and morbidity associated with them. Public awareness of Internet addiction, parent education on internet use and advocacy for proper parental supervision of internet use are pertinent factors in prevention efforts. Simple measures such as implementing house rules on Internet usage at a young age, placing the computer in the common living area and making available alternative social activities are some of the practical tips parents could start doing easily. Improved parent-child relationship and family functioning, effective communication and positive social support further lay the foundation for the family and the children to become resilient and competent in problem solving<sup>[20]</sup>.

**Treatment of internet addiction:** Since, IA was first introduced in the media and research literature, many research studies have been undertaken in an attempt to define, explore, investigate and predict addiction and identify possible interventions or treatments for IA. Seven possible interventions have been identified as well as therapeutic approaches such as Cognitive Behavioral Therapy (CBT), Reality Therapy Group Counseling and Psychopharmacology.

**Seven possible techniques:** In Al-Hilla city (2015) Babylon university research also conducted to assess the prevalence of internet addiction among young and find out the relation between internet addiction compliance personality traits and usage of internet applications . The study included (60) students, those who used internet . The finding of the study show the highest percentage of young internet application were facebook (48%), YouTube (17.5), news group (11%), chat room (8%), E-mail (6%), www (5%) and information protocols (4.5). The finding of the study indicated that the overall assessment for internet application compliance level addiction severe and that young male were found more internet addicted than their female counterparts with internet application. In Syria (August, 2017) research also conducted to examine the relationship between internet addiction and temperament among children and adolescents for internet addiction. About 350 children (167 boys and 184 girls) aged from 10-15 years of age. The finding showed that boys were more addicted than female. Showed significant differences for internet addiction (Sig. 0.05). Of the sample, boys were found to be more addicted (M = 46.06) than girls (M = 38.12). showed significant differences between children and adolescents for internet addiction. Of the sample, adolescents found to be more addicted (M = 49.65) than children (M = 36.72) revealed that positive and significant correlation between internet addiction and Intensity (R = 0.31, Mood (R = 0.53), Distractibility (R = 0.51) and Physical sensitivity (R = 0.48), on one side and negatively with Activity (R = -0.36) and Regularity (R = -0.27) on the other side.

In Turkey (March, 2018) a research was conducted aimed to examine the IA level of high school senior students in Yesilyurt Contrary of Malatya. The study population consist of 3442 senior student who was studying at 37 high school is the following results were received, out of the 606 senior high school student, 85 (14.1%) were in addicted group, 258 (42.6%) were in risk group and 262 (3.3%) were in the non addicted group . A significant differentiate was detected between the internet addiction scores of the student according to gender variable in favor male student.

In Basra city (May, 2018), A study of negative effects of internet on indexes the mental health of nursing students, results of the study show that student's negative effects test for (146) nursing college student in the questionnaire, where minimum degree equal<sup>[9]</sup>, maximum degree equal (86), the mean of negative effect equal (40.90), std. deviation equal (15.435) and its result evaluation was in normal level. this result and its level give idea to nursing student awareness about the negative effect of internet, also shows using a types of websites by sample where more type have used social media and science site by students at (94%). This result and its frequency give us idea of nursing student's to internet

web sites, hours of internet using, by nursing students where less frequency have<sup>[1]</sup> student in the rate of (0.7%) at zero hour per day, more frequency have<sup>[19]</sup> students in the rate of (16.4%) at two hours per day shows comparison to sex (male and female) and Housing site (city center and out center in hours of using), t-value to deferent between male and female (2.36) is significant at 0.05 level. T-value to deferent between city center and out center (0.99) is in significant at level (0.05). The relationship between hours and types of web sites with mental health index hours of using for mental health index (0.347), df (144), p-value (0.000), so, the result significant, types of websites variables for mental health index (0.056), df (144) p = (0.499), so, the result insignificant.

## MATERIALS AND METHODS

**Design of the study:** Descriptive design was carried out to asses of internet addiction of secondary schools students in Basra city.

**Setting of the project:** The study carried out at secondary schools in Basra city from November 11-2018 through March 3- 2019?

**Sample of the study:** Rrandom sample (363) of secondary schools students . Where number of male was (216), number of female was (147).

**Project instrument:** Instrument of this study was self-administered questioner for internet addiction is adapted and modified from the world wide use of internet addiction test (IA) conation of 28 items as proposed by Dr. Kimberly young (a licensed psychologist and internationally known expert on internet addiction ), also known as internet addiction test (young 1996). Data collection was carried out from December 2018 through 2 weeks.

### Questioner consist of two part

**Demographic data:** Consist of six variable include (age, sex, class, number of family member, arrangement of student in her or his family, address) to identified relationship between certain demographic data and level of internet addiction in students.

The second part of questioner composed of twenty eight question about internet addiction to evaluate level of internet addiction in secondary school student . Question one about (time that spending in internet) question two about (type of internet use), question three (have you phone or not ) and then other question including twenty five items (4 point scale) (never )-(always), (sometimes), (scarcely) the level of internet addiction was determine into three level mild (9.9%), moderate (42.1%), severe (41.6%).

**Method and data collection:** The data collected by obtaining formal approval from students to answer about self-administer questioner. Data collection was carried out from December 2018 through 3 weeks.

**Statically and data analysis:** Analysis was made by using SPSS Version 16, (arithmetic mean, standard deviation, standard error, percent, t-test, p-value and Pearson correlation).

**Ethical consideration:** Before any attempt to collect the data, each participate (student) was notified about purpose of study that right to refuse or participate in the study and anonymity and confidentiality of information gathered.

## RESULTS AND DISCUSSION

The study was conducted at university of Basra college of nursing 2018-2019. The sample of study (363), where number of male (216 ) and number of female was (147). Instrument of this study was self-administered questioner for internet addiction is adapted and modified from the world wide use of Internet Addiction test (IA), examines the descriptive statistics of the sample of the study where the number of Internet users is males 216 more than the number of female Internet users 147 (males 59.5%, females 40.5%), the descriptive statistics of the sample categories and their degree of importance in the result. The results show that there is insignificant difference between the groups (class 1st 16.3% , class 2nd 17.9%, class 3rd 22.9%, class 4th 14.6%) and It shows that the highest number in the class 6 th 89 (24.5%) and the lowest number in the class 5th 14 (3.9%), the percentage and frequency of the distribution of the level of internet addiction on the residential area of the participants. The results show that the number of Internet users in urban areas is 185 (51%) more than the number of Internet users in rural areas 178 (49%), the average and relationships between the total number of hours, age and type of use and there significant difference between number of hours people use the internet per day and types internet usage them and insignificant between age (the mean 16.17), the statistics of the total score and evaluation of the samples where the results show that the mean the level of internet addiction is 58.54% (moderate) in total sample of the study and the maximum score for the samples 95% while the minimum score in the samples was 27%, overall level of addiction among secondary school students where the results showed that (mild 9.9%, moderate 42.1%, severe 41.6% and more severe 6.3%), descriptive statistics of the type of Internet use for secondary students. The results showed that a large number of internet users use social media 44.9% and the

Table 1: Descriptive Statistics for sample's sex and its significant in score

Sex	Sample size	Percent	Mean of score	SD	p-value	Results
Male	216	59.5	60.36	13.488	0.002	Significant
Female	147	40.5	55.86	14.102		
Total	363	10.0				

Table 2: Descriptive Statistics for sample's classes and its significant in score

Classes	Sample size	Percent	Mean of score	SD	p-value	Results
1	59	16.3	56.76	14.293	0.057	Insignificant
2	65	17.9	59.05	13.864		
3	83	22.9	58.02	13.228		
4	53	14.6	54.62	17.779		
5	14	3.9	62.71	10.269		
6	89	24.5	61.51	11.456		
Total	363	10.0				

Table 3: Descriptive statistics for sample's address and its significant in score

Address	Sample size	Percent	Mean of score	SD	p-value	Result
Urban	185	51	60.21	12.448	0.020	Significant
Rural	178	49	56.81	15.101		
Total	363	100				

percentage of users of online games 14.9% while 33.6% Internet users use it for study and research and finally 6.3% internet users use it for other things, descriptive statistics for number of hours you use the internet per day. The results showed that 37.7% of people use the Internet >2 h per day, 36.6% use the Internet 2-4 h per day, 14.0% of people use the internet <6 h a day and the lowest number of people 11.6% use internet 4-6 h per day.

Table 1 examines the descriptive statistics of the sample of the study where the number of Internet users is males 216, the number of female Internet users 147 (males 59.5%, females 40.5%) (Fig. 1).

Table 2 shows the descriptive statistics of the sample categories and their degree of importance in the result. The results show that there is insignificant difference between the groups (class1st 16.3%, class 2nd 17.9%, class 3rd 22.9%, class 4th 14.6%) and it shows that the highest number in the class 6th 89 (24.5%) and the lowest number in the class 5th 14 (3.9%) (Fig. 2).

Table 3 shows the percentage and frequency of the distribution of the level of Internet addiction on the residential area of the participants. The results show that the number of internet users in urban areas is 185 (51%) more than the number of Internet users in rural areas 178 (49%) (Fig. 3).

**Results of relationships and assessment:** Table 4 shows the average and relationships between the total number of hours, age and type of use and there significant difference between Number of hours people use the Internet per day and types internet usage them and insignificant between age (the mean 16.17).

Table 4: The relationships between Total score with Number of hours, Age and type of use

Variables	Mean	SD	Pearson correlation	p-value	Results
Total score	58.54	13.898	-	-	-
No. of hours you use the internet per day	2.02	1.028	0.585**	0.000	Significant
Age	16.17	10.802	0.025	0.630	Insignificant
Type your internet usage	2.04	1.124	-0.247**	0.000	Significant

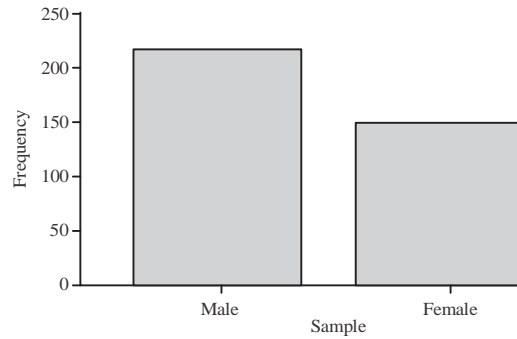


Fig. 1: Sample of the study

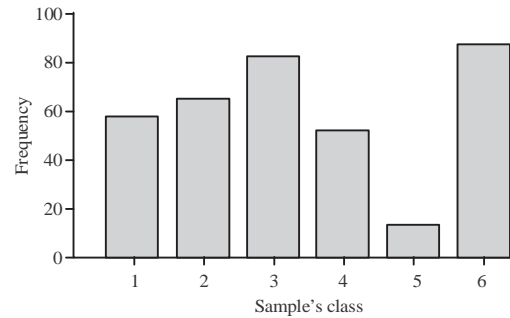


Fig. 2: In significant difference between groups

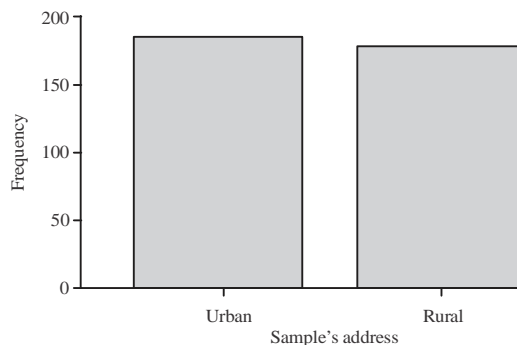


Fig. 3: Internet users in residential area

Table 5 shows the statistics of the total score and evaluation of the samples where the results show that the mean the level of internet addiction is 58.54% (moderate)

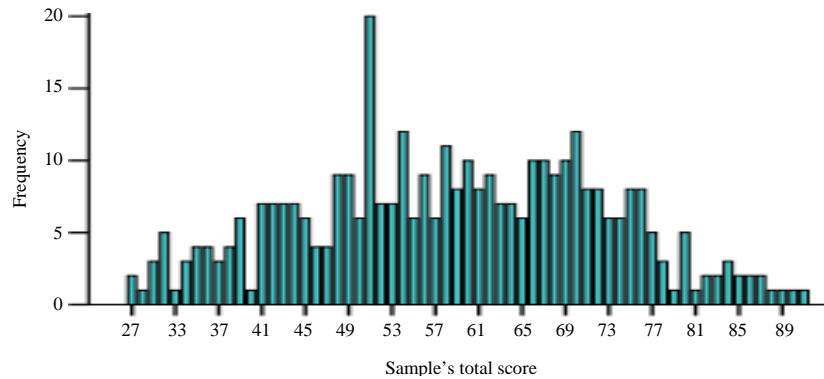


Fig. 4: Total score and evacuation of the samples

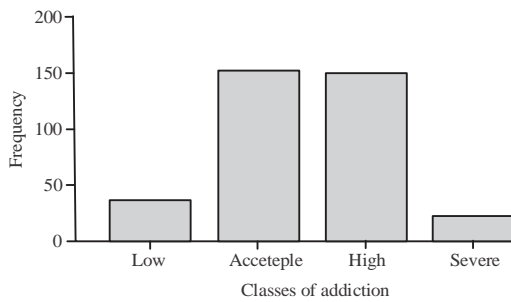


Fig. 5: Overall level of addiction among secondary school student

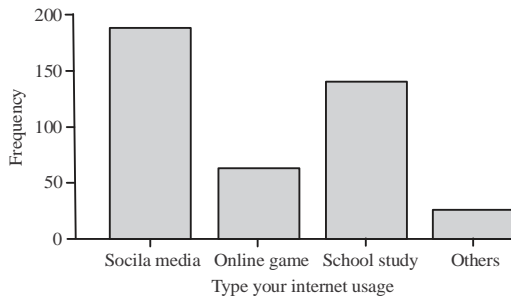


Fig. 6: Statistics of types of internet users

in total sample of the study and the maximum score for the samples 95% while the minimum score in the samples was 27% (Fig. 4). Table 6 show overall level of addiction among secondary school students where the results showed that (mild 9.9%, moderate 42.1%, severe 41.6% and more severe 6.3%) (Fig. 5).

Table 7 shows descriptive statistics of the type of Internet use for secondary students. The results showed that a large number of Internet users use social media 44.9% and the percentage of users of online games 14.9% while 33.6% internet users use it for study and research and finally 6.3% internet users use it for other things (Fig. 6 and 7).

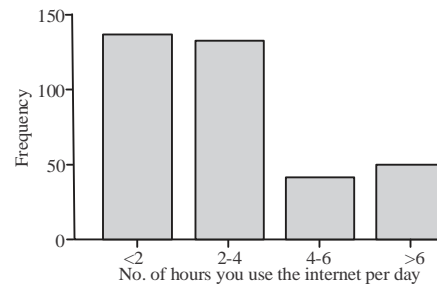


Fig. 7: Number of hours you use the internet per day

Table 5: Statistics of total score and sample's assessment

Statistics	Value	Assessment
Sample size	363	Moderate
Mean of total score	58.54	-
SE of Mean	.729	-
Mode	51	-
SD	13.898	-
Range	68	-
Minimum	27	-
Maximum	95	-

Table 6: Level of addiction of overall sample

Classes of addiction	Frequency	Percent	Cumulative percent
Mild	36	9.9	9.9
Moderate	153	42.1	52.1
Severe	151	41.6	93.7
More severe	23	6.3	100.0
Total	363	100.0	-

Table 7: Descriptive statistics for type of internet use regarding to secondary school student

Type of internet usage	Frequency	Percent	Cumulative (%)
Social media	163	44.9	44.9
Online game	54	14.9	59.8
School duty	122	33.6	93.4
Others	23	6.3	99.7
Total	363	100.0	-

Table 8: Descriptive statistics for No of hours you use the internet per day

No. of hours	Frequency	Percent	Cumulative (%)
>2 h	137	37.7	37.7
2-4 h	133	36.6	74.4
4-6 h	42	11.6	86.0
<6 h	51	14.0	100.0
Total	363	100.0	-

Table 9: Parameters

Items	Always		Sometimes		Rarely		Never		Total	Mean	SD
	F	(%)	F	(%)	F	(%)	F	(%)			
Do you know what your parents are doing on the internet?	187	51.5	114	31.4	28	7.7	34	9.4	100	1.75	0.952
Has the internet negatively impacted your school assignments and grades?	51	14.0	123	33.9	49	13.5	140	38.6	100	2.23	1.111
Have you tried to spend less time online?	93	25.6	188	51.8	38	10.5	44	12.1	100	2.09	0.916
Do you think the use of the Internet is more fun than the rest of the events (football, reading)	99	27.3	109	30.0	60	16.5	94	25.9	100	2.60	1.151
Would your life be dull and empty without using the internet?	139	38.3	101	27.8	37	10.2	86	23.7	100	2.81	1.183
Do you hide your friends from the time you spend using the Internet?	44	12.1	97	26.7	53	14.6	169	46.6	100	2.04	1.104
Is internet access the first thing you think of doing when you wake up or go home?	99	27.3	106	29.2	48	13.2	110	30.3	100	2.53	1.185
Do you get bored with your parents when they cut off your internet service?	90	24.8	98	27.0	42	11.6	133	36.3	100	2.40	1.214
Do you prefer online games (online) to sleep and rest?	75	20.7	110	30.3	44	12.1	134	36.9	100	2.35	1.176
Have you ever talked to one of you how to surf the Internet safely?	98	27.0	118	32.5	33	9.1	114	31.4	100	2.45	1.191
Does the time you spend on the Internet affect your relationship with your family and friends?	51	14.0	85	23.4	41	11.3	186	51.2	100	2.00	1.145
Have you neglected your duties towards your family because of the Internet?	34	9.4	93	25.6	47	12.9	189	52.5	100	1.92	1.072
Are you upset when your mobile or computer battery charge ends?	179	49.3	91	25.1	27	7.4	65	17.9	100	3.17	2.383
Have you ever met strangers who you met online?	81	22.3	92	25.3	30	8.3	160	44.1	100	2.26	1.234
When you go out somewhere, do you expect yourself to come back to sit online?	119	32.8	95	26.2	31	8.5	118	32.5	100	2.30	1.103
Do you scream or run when someone talks to you and you use the Internet?	68	18.7	89	24.5	61	16.8	145	39.9	100	2.22	1.162
When you are offline, do you be busy being busy online?	82	22.6	123	33.9	40	11.0	118	32.5	100	2.47	1.164
If the Internet continues to be disconnected for a long period of time (more than two days), does it cause you anxiety, tension and problems with your parents?	64	17.6	79	21.8	48	13.2	172	47.4	100	2.10	1.180
Does your family complain about the time you spend online?	75	20.7	130	35.8	51	14.0	107	29.5	100	2.48	1.121
Do you feel tired in looking or pain down the back or in the fingers and hands after leaving the device while browsing?	64	17.6	141	38.8	54	14.9	104	28.7	100	2.45	1.085
Do you repair your mobile or computer quickly if it crashes?	153	42.1	95	26.2	49	13.5	66	18.2	100	2.92	1.132
Do you eat some of your meals online so you do not stop using it?	59	16.3	112	30.9	34	9.4	158	43.5	100	2.20	1.165
Do you reduce the number of hours of your sleep, to spend more time using the internet?	56	15.4	98	27.0	41	11.3	168	46.3	100	2.12	1.158
Would you prefer to stay online rather than going out with friends?	53	15.4	91	25.1	54	14.9	165	45.5	100	2.09	1.134
Do you have new friends or new relationships online?	119	32.8	95	26.2	31	8.5	118	32.5	100	2.59	1.246

Table 8 descriptive statistics for number of hours you use the internet per day, The results showed that 37.7% of people use the internet >2 h per day, 36.6% use the internet 2-4 h/day, 14.0% of people use the internet more than 6 h a day and the lowest number of people 11.6% use internet 4-6 h/day (Table 9).

### RECOMMENDATIONS

The person should set strict and strict rules to reduce the amount of time spent on communication sites. It is useful to set time intervals in which the person is absent from all media and communication, creating periods of “fasting. They must find what they occupy themselves

and their lives and this is a very important element in the treatment. You should give priority to real life as a commitment to friends with wonderful relationships and it will not happen without spending time with them. The place of work is not like the beach and the sleep time is not like the time of sport and recovery. Remove people who do not care about your page. Be sure this is a great opportunity to learn about other useful sites, there are open learning sites. You must exercise until you get rid of using the equipment. Father and mother must follow their children constantly and raise them

### REFERENCES

01. Rheingold, H., 1993. *The Virtual Community: Homesteading on the Electronic Frontier*. Addison Wesley, Reading, MA.
02. Anonymous, 2012. Effect of social networking sites on today's youth. WordPress, USA. <https://roundthebendthoughts.wordpress.com/2012/10/20/effects-of-social-networking-sites-on-todays-youth/>
03. Pfaff, D.W. and N.D. Volkow, 2013. *Neuroscience in the 21st Century*. 2nd Edn., Springer, New York, USA., ISBN: 9781493934737, Pages: 3112.
04. Kim, S., 2011. E effects of internet use on academic achievement and behavioral adjustment among South Korean adolescents: Mediating and moderating roles of parental factors. Ph.D. Thesis, David B. Falk College of Sport and Human Dynamics-Syracuse University, Syracuse, New York.
05. Jhala, J. and R. Sharma, 2017. Prevalence and nature of internet use among adolescents in Vadodara (Gujarat). *Int. J. Indian Psychol.*, 4: 28-42.
06. Brenner, V., 1997. Psychology of computer use: XLVII. Parameters of Internet use, abuse and addiction: The first 90 days of the internet usage survey. *Psychol. Rep.*, 80: 879-882.
07. Widyanto, L. and M. McMurrin, 2004. The psychometric properties of the internet addiction test. *CyberPsychol. Behav.*, 7: 443-450.
08. Sowndarya, T.A. and M. Pattar, 2018. Pattern of internet addiction among urban and rural school students, Mangaluru, India: A comparative crosssectional study. *Int. J. Contemp. Pediatr.*, 5: 1750-1754.
09. Ferrara, P., G. Corsello, F. Ianniello, A. Sbordone, J. Ehrich, I. Giardino and M. Pettoello-Mantovani, 2017. Internet addiction: Starting the debate on health and well-being of children overexposed to digital media. *J. Pediatr.*, 191: 280-281.
10. Halder, D. and K. Jaishankar, 2014. Use and misuse of internet by semi-urban and rural youth in India: A baseline survey report (2013). *SSRN J.*, Vol. 1, 10.2139/ssrn.2378968
11. Kumar, R., 2014. Internet addiction and psychosomatic symptoms in engineering students. *Delhi Psychiatry J.*, 17: 387-394.
12. Kuss, D.J., M.D. Griffiths, L. Karila and J. Billieux, 2014. Internet addiction: A systematic review of epidemiological research for the last decade. *Curr. Pharm. Design*, 20: 4026-4052.
13. Young, K., 1996. Internet addiction: The emergence of a new clinical disorder. Proceedings of the 104th Annual Meeting of the American Psychological Association, August 1996, Toronto, Canada, pp: 1-13.
14. Young, K., 1999. Internet Addiction: Symptom, Evaluation and Treatment. In: *Innovations in Clinical Practice: A Source Book*, Creek, L.V. and T.L. Jackson (Eds.). Professional Resource Press, Sarasota, Fla, USA., pp: 19-31.
15. Mitchell, P., 2005. Internet addiction: Genuine diagnosis or not?. *Lancet*, Vol. 355, 10.1016/S0140-6736(05) 72500-9
16. Kormas, G., E. Critselis, M. Janikian, D. Kafetzis and A. Tsitsika, 2011. Risk factors and psychosocial characteristics of potential problematic and problematic internet use among adolescents: A cross-sectional study. *BMC Public Health*, Vol. 11, No. 1. 10.1186/1471-2458-11-595
17. Ko, C.H., J.Y. Yen, S.C. Liu, C.F. Huang and C.F. Yen, 2009. The associations between aggressive behaviors and Internet addiction and online activities in adolescents. *J. Adolescent Health*, 44: 598-605.
18. Mark, A.E. and I. Janssen, 2008. Relationship between screen time and metabolic syndrome in adolescents. *J. Public Health*, 30: 153-160.
19. Young, K.S., 1998. Internet addiction: The emergence of a new clinical disorder. *CyberPsychol. Behav.*, 1: 237-244.
20. Ong, S.H. and Y.R. Tan, 2014. Internet addiction in young people. *Ann. Acad. Med. Singapore*, 43: 378-782.