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Educational instruction about Internet Addiction and health of Menofia University Students

Amal Attia Kotp Hussin[1], Naglaa Abd El-Mawgoud Ahmed[1], Basma Abd El-Mongy Ismail[2]

[1]Assistant Professor of Family and Community Health Nursing, Faculty of Nursing-Menofia University

[2]Trainer at Nursing Training Unit, Menofia University Hospital, Menofia University

Abstract: **Internet addiction is a growing problem among university students worldwide. Aim: to assess the effect of educational instruction about Internet Addiction and health of Menofia University Students Design: Quasi experimental design with pre and post-test was utilized. Setting: This study was conducted at four faculties from both scientific and literary faculties in Shebin El-kom City at Menofia University. Subject: A simple random sample consisted of 383 students were used. Tools: The following tools were used, 1.Self-administered structured questionnaire which involved socio-demographic data and pattern of internet use. 2. Internet addiction scale test. Results: This study showed a high percentage of internet addiction among Menofia university students 65.976% which affects their physical, social & psychological wellbeing. After the instruction, the prevalence of internet addiction significantly decreased in post the instruction 44.86 ± 11.04 compared to pre instruction74.43 ± 12.71, and its adverse effects significant decreased. Conclusion: the educational instruction was effective on the reduction the rate of internet addiction and its adverse effects on the health among faculty's students. Recommendation: Raise student's awareness about the danger of internet addiction related to physical, psychological & social health, and learns how to make a better balanced relationship between internet and social media use versus their academic study.**

Keywords: **Educational instruction, internet addiction, University Students.**

1. INTRODUCTION

Internet addiction (IA) is a major health problem in the world (Jung Koo, & Hye Kwon, 2014). It is a relatively recent and fast growing clinical phenomenon. It acts as a potential threat to public health in many countries due to its fast growth (Mihajlov& *et al.*, 2017). Internet addiction refers to the excessive use of the internet or using the internet as irrational. Young (2013) believes that the term "addiction" was used for internet users because it has the same symptoms of the alcohol and cigarettes addiction.

Behavioral problems related to internet use was defined as internet addiction or ''problematic Internet use'' (PIU). It is the uncontrollable use of the internet which is markedly distressing, time consuming or resulting in social, occupational or financial difficulties (Desouky & et al 2015). Several terms for this phenomenon have emerged and are sometimes used interchangeably, including compulsive Internet use, pathological Internet use, excessive Internet use, Internet dependency, Internet addiction, cyber addiction, and problematic Internet use (Joshua, Eyal, Eric & Laura, 2015). Excessive Internet use is seen as a form of technological addiction which touches a large scope of behavioral responses (Maheri, & et al., 2017).

Internet use is growing in the Middle East; there were 123,172,132 internet users for 2015. Over 40% of the population is now connected to the internet and the rate is increasing rapidly in the wealthier countries of the Arab Middle East due to infrastructure based competition from mobile network operators (Nauert, 2015).

In Egypt Lee, (2016) reported that 30,835,256 Internet Users at 2016, Egypt's population use the internet were 39%. 48% of them are men and 29% of are women use the internet. The percentage of internet addiction from age group 15-24: was 56%which represented the largest proportion of the categories. There were about 29 million users (35.6% of the population) in 2012, compared to 12.8 million in 2008. More than 80% of the Egyptian internet café clients are young people (Desouky, et al, 2015).

1.1. Significance of the Study

The internet is considered as the most effective tool in all areas of science, business, education, culture, and politics The total number of worldwide internet users was estimated as 1.2 billion in the year 2000 and jumped to be 3.17 billion in 2015 According to the internet usage statistics, internet users are increasing in Egypt reaching about 54.6 % of the population in 2015, compared to 35.6% in 2012.

A growing social issue, the considerable variance of the prevalence rates reported for Internet Addiction Disorder (IAD) between 0.3% and 38 % (Chakraborty, Basu and Kumar, 2010). Worldwide 3,566,321,015 World Internet Users at 2016, 15 million people in the United States used the internet every day. Every three months the rate of use was increasing by 25 % (World Internet Users Statistics, 2016).

The university students have high vulnerability toward internet addiction disorder. Internet addiction is a global phenomenon with different levels and it ranges from 5% to 25% in the US, China, South Korea, England, Australia, Taiwan, Japan, and other Eastern and Western European countries students. In Iran, 25.6% of students are addicted to the internet. Another study reported the internet addiction equal to 17.7% among university students in Iran (Zanjani & Heris, 2014).

1.2. Aim of the Study

This study aimed to assess effect of educational instruction about internet addiction on health of Menofia University Students**.**

1.3. Hypotheses

1. The participants' score of internet addiction at posttest will be lower than their score at pretest after application educational instruction.

2. Physical, social and psychological adverse effect related to internet addiction will be improved at posttest compared by pretest among Menofia university students.

2. SUBJECTS AND METHODS

2.1. Research Design

Quasi experimental design with pre and post-test was utilized to accomplish the aim of this study.

2.2. Research Setting

This study was conducted at four faculties in Shebin El-kom City, Menofia University, including three scientific faculties (Medicine, science & Nursing) and one literary faculty (Arts).

2.3. Sample

A multistage random sample consisted of 383 university Students were included in the study from November 2017 to the end of March 2018. The least sample size was calculated according to Idrees, (2008); 5% confidence limits at 99% confidence level were 383 students. For better accuracy and validity and to cover any losses due to incomplete questionnaires, 400 students were estimated to participate in the study. **A multistage random sampling technique was used to select sample:**

1. First stage included random selection of 4 faculties including three scientific faculties and one literary faculty out of 16 faculties in Shebin El-kom City, Menofia University.

2. Second stage included random selection of one department from each faculty.

3. Third stage included random selection of students from each selected faculty through using a simple random sample technique.

Sample Size

The number of undergraduate students was selected according to the following equation:

$$\mathbf{n}= \frac{n\, z^2\, p(1-p)}{Ne^2 + z^2\, p(1-p)}$$

Where "n" is the sample size and "N" The size of the study population and the standard err or limits are" 1.96" When the confidence level is 95% and "p" The ratio of the number of sample samples in which the studied property is "50%" and "e" is the sample error allowed in the estimation of the percentage .05%

2.4. Tools of the Study

2.4.1. Self-Administered Structured Questionnaire

It was developed by the researchers after reviewing the related literature and included the following:

A. Socio-demographic data: It included student's age, gender, type of faculty, academic year, and residence.

B. pattern of internet use: it included average hours of Internet use, minutes of Internet use in every time, the purpose of using Internet, number of friends on internet, preferred place and preferred device.

2.4.2. **Internet Addiction test (IAT): (Appendix II):**

It was developed by Young (1996), used to identify probable cases of internet addiction. Internet Addiction Test (IAT) is a reliable and valid measure of addictive use of Internet. It consists of "20" items that measures mild, moderate and severe level of Internet Addiction. The test consists of 20 items on 5-point Likert scale and is scored from 1 to 5. Finally, individuals' scores are divided into two equal groups, "lower than 49 and higher than 50", showing normal status and users' addiction, respectively. A summative score was formed, with higher scores indicating higher severity of IA. The original instrument showed good psychometric properties (Wang & et al 2016).these question such as:

- How often do you feel that you should decrease the amount of time spent online? & - How often do you daydream about the Internet?

Scoring system: After all the questions have been answered, add the numbers for each response to obtain a final score, as follows: 1:" None internet addict" 0 – 30 point**,** 2:"Mild internet addiction" 31- 49 points, 3: "Moderate internet addiction" 50 -79 points and 4. "Severe internet addiction" 80 – 100 points

2.5. Validity and Reliability of Tools

Validation of the assessment tool was tested for its content validity &face validity by three experts in the fields of family and Community Health nursing and psychologists, and epidemiologists who reviewed this instruments and judge it to measure what intended to be measured (face validity) &judge the item for their adequacy (content validity). A reliability analysis was carried out in order to examine the internal consistency of its questions and identify the extent to which the items of tools measured the same concept and correlate with each other. The reliability was measured by Cronbach's Alpha coefficient test. The value of Cronbach's alpha was **0.944**.

2.6. Pilot Study

Pilot study was conducted on 38 undergraduate students from both scientific and literary faculties. The pilot sample was not included in the total sample of the research work. The pilot study was carried out to test the applicability and clarity of the constructed questionnaire and detect any problems that might arise during the actual collection of data. According to the results of the pilot study, the necessary modifications and clarifications of some questions were done. Then the final form was developed and used in data collection.

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2.7. **Ethical considerations:**

Researchers followed all the ethical issues in conducting the research. Informed consent was obtained from the participants who were willing to participate in the study. The participants were informed that participation in this study is voluntary; they can withdraw at any time during the study without giving reasons. The researchers explained the aim of the study to all university students in the study sample. They were reassured that any obtained information would be strictly confidential.

2.8 **.Data collection procedure:**

- This study was conducted during the period starting from November 2017 to the end of March 2018.
- Necessary approval was obtained from the dean of each selected faculty after issuing letters to them from the Faculty of Nursing, Menofia University explaining the aim of the study in order to obtain permission and help. Also, meetings were done with the heads of departments' which were selected in each faculty to explain the aim of the research and method of data collection to obtain permission for conducting the study.
- After obtaining approval and informed consent to conduct the study, the researcher introduced herself and a brief explanation about the purpose of the study was given to the students.
- Initiated data collection from university students according to their schedules time table. Duration and time of sessions were different from each other depending on participants' readiness and study conditions through using adapted internet addiction scale. The researcher was present during data collection for any clarifications to the subjects about questionnaires. Participants were asked to fill the adapted internet addiction test. The internet addiction was measured using the Arabic version of Young internet addiction test (YIAT). This session took about 15- 20 minutes
- The researcher selected the students who had scores above 40 % at internet addiction test and completed study with them (n=252).
- Self-administered questionnaire were used to collect (a) demographic characteristics: age, sex, faculty…etc. (b) Pattern of internet usage: time spent on-line per day, the purpose and preferred device for internet use…etc.
- The obtained data used as the baseline assessment (pre-test). The researcher developed instructions with visual materials aimed to improve student's perception regarding internet use.
- Teaching methods were used: - Role plays, modeling, group discussion, brain storming, also; media was picture and handout booklet and cylinder disk prepared by the researcher. To ensure that participants understands the session's content, each session will start with a summary and follow up of the new, taking into consideration using a simple language to suit personal differences.
- In this study education was based on active learning methods which included group discussions, questions–answers, and lectures, educational instruction.
- At first session, increasing knowledge of faculty students about internet addiction and its side effects, discuss the importance of internet use, list positive and adverse impact of internet use, define internet addiction, and predict characteristics of internet addictive person. Identify the signs and symptoms or indicators of internet addiction. This session took about 25-30 minutes.
- The second session of the instruction discussed the adverse consequences of internet addiction. The researcher helped every participant to be able to: discuss the psychological, social, behavioral and economical health effects on persons, family and community resulting from internet addiction and identify cues to action for improving their uses.
- In the last session, group discussion was about the benefits of adopting preventive behaviors of internet addiction and barriers of adopting preventive behaviors of internet addiction. Students were given a guide booklet developed by the researchers after reviewing the related literature.
- At the end of each session the researcher made conclusion and took feedback for every participant& informed about the outline of the next session and its time.
- After month, the researcher conducted the post–test using the same pretest questionnaire.

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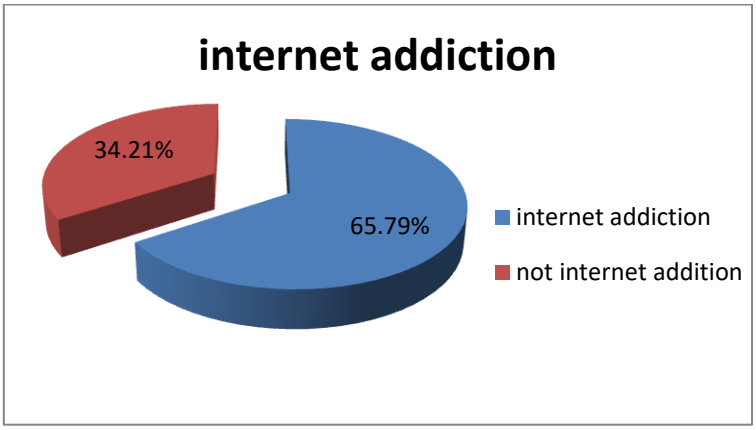
2.9. Statistical Analysis

Data was entered and analyzed by using SPSS statistical package version 19.Graphics were done using Excel program. Quantitative data were presented by mean (X) and standard deviation (SD). It was analyzed using paired t- test for comparison between two Means. Qualitative data were presented in the form of frequency distribution tables, number and percentage. It was analyzed by chi-square ($\chi 2$) test. However, if an expected value of any cell in the table was less than 5, Fisher Exact test was used(if the table was 4 cells), or Likelihood test (if the table was more than 4 cells). Level of significance was set as P value <0.05 for all significant tests.

3. RESULTS

Figure (1): The percentage of internet addiction among total sample (383).



This figure 1 showed that the percentage of internet addiction was 65.79 % (252) from the total sample (383).

Table (1): Socio demographic characteristics of the total sample (n=383).

Variable	Non Addicts (n=131) No. %	addicts (n=252) No. %
Age		
≤19 (adolescence)	**5 40.5**	**133 52.8**
>19(young adult)	**78 59.5**	**119 47.2**
Gender		
Male	**60 45.8**	**8 3.2**
Female	**71 54.2**	**244 96.8**
Faculty type		
literary	**60 45.8**	**132 52.4**
scientific	**71 54.2**	**120 47.6**
Level of Mother education		
1- Illiterate	**7 5.4**	**21 8.3**
2- Primary education	**28 21.5**	**37 14.7**
3- Moderate education	**59 45.4**	**132 52.4**
4- High education	**34 26.2**	**58 23.0**
5- Other	**2 1.5**	**4 1.6**
Level of Father education		
1- Illiterate	**5 3.8**	**11 4.4**
2- Primary education	**25 19.2**	**56 22.2**
3- Moderate education	**62 47.7**	**120 47.6**
4- High education	**38 29.2**	**65 25.8**

= insignificant *= significant

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Table 1 showed that, 65.79% **(n=252)** were addict, out of them 52.8 % were adolescent but 47.2% were young adult, 96.8% were female gender but 3.2% only from male, and more than half of sample (52.4%) from the literary faculty and 47.6% from scientific faculties, and around half of the sample had moderate educated father and mother (47.6%, 52.4% respectively).

Table (2): Mean and standard deviation of internet addiction according to types of faculties of studied group based on the scale of internet addiction test (n=252)

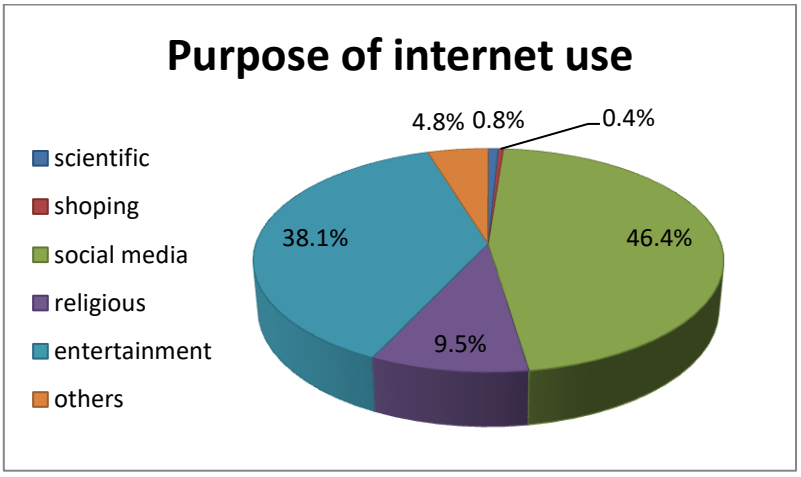
Variable	literary faculties (n=132) Mean ± SD	scientific faculties (n=120) Mean ± SD	T-test	P value
Total score of internet addiction scale test	69.1 ± 11.53	62.8 ± 12.59	5.34	<0.001 **

**** = highly significant**

P < 0.001

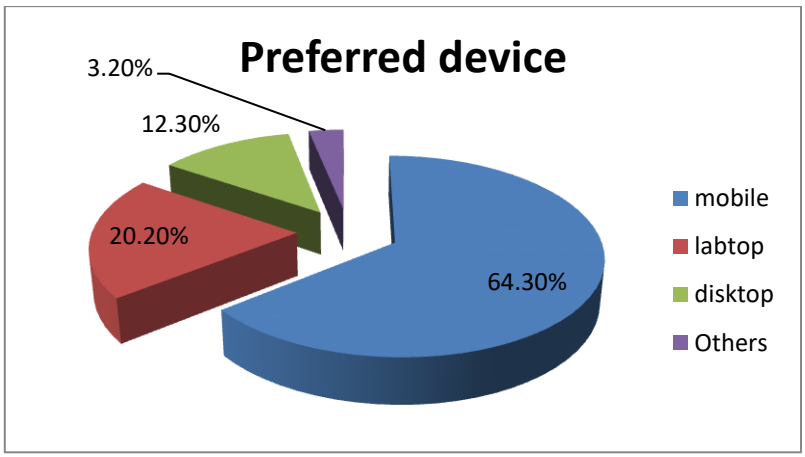
Table 2 showed the comparison of the prevalence of internet addiction according to internet addiction scale test among studied groups based on the types of their faculties which reveals that62.8 ± 12.59 were addict from scientific faculties and (69.1 ± 11.53) were addict from literacy faculties with (p<0.001).

Figure (2): The reported purpose of internet use among studied group (n=252).



This figure revealed that: Social media sites were the most current purpose among addict subjects (46.4 %) followed by entertainment (38.1%), religious (9.5%), others (4.8%), scientific (0.8%) & shopping (0.4%) respectively.

Figure (3): Reported preferred device for internet use among studied group **(n=252).**



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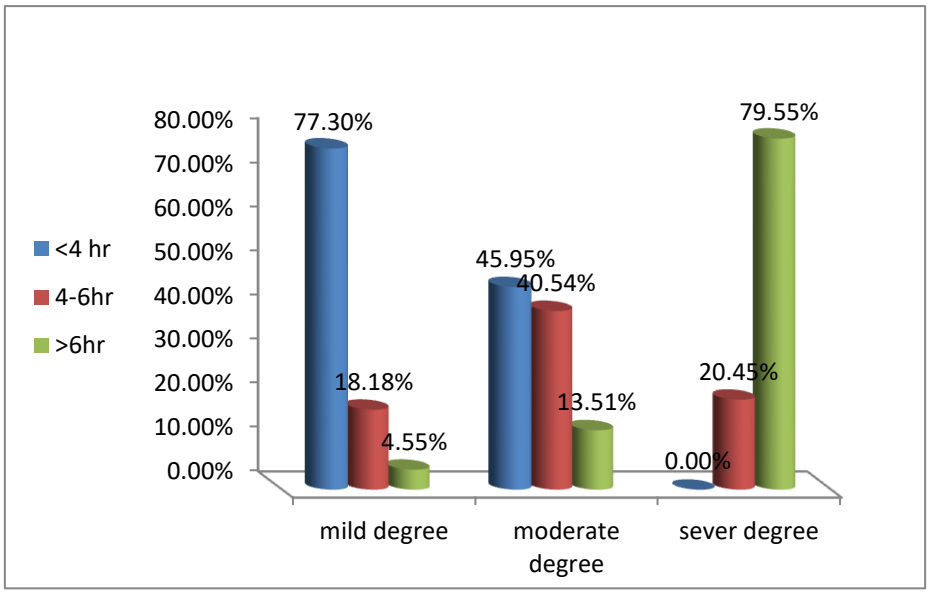
This figure reveled that, the most preferred device was mobile (64.3%) followed by laptop (20.2%), desktop (12.3%) and others (3.2%) respectively.

Figure (4): The degrees of internet addiction with the number of used hours per day.

(mean± SD) 4.69 ± 2.63



This figure revealed that79.5% of those spending more than 6 hours per day were had sever degree of internet addiction, also 77.30 % of those who spend less than 4 hours per day having mild degree of internet addiction. The mean ± SD of hours spends on net daily was 4.69 ± 2.63.

Table (3): Effects of internet addiction on the academic performance of the studied group pre and post instruction (n=252).

Variable	Pre		Post		X^2	p-value
Neglect the study due to using the Internet:	**No**	**%**	**No**	**%**		
▪ very agree	61	24.2	28	11.1		
▪ Agree	53	21.0	36	14.3		
▪ un sure	117	46.4	56	22.2	121.742	0.00 **
▪ disagree	21	8.3	91	36.1		
▪ very disagree	0	0	41	16.3		
Decline in grades due to use of internet:						
▪ very agree	138	54.8	0	0		
▪ Agree	92	36.5	143	56.7	209.201	0.00 **
▪ un sure	22	8.7	91	36.1		
▪ disagree	0	0	0	0		
▪ very disagree	0	0	18	7.1		
Spend more time online:						
▪ very agree	42	16.7	9	3.6		
▪ Agree	53	21.0	50	19.8	172.590	0.00 **
▪ un sure	116	46.0	39	15.5		
▪ disagree	40	15.9	88	34.9		
▪ very disagree	0	0	66	26.2		

= insignificant *= significant

Table 3 showed that, there was statistical significant improvement of the student opinions about adverse effect of internet addiction on the academic performance at post instructions than pre instructions (p=0.00).

Table (4): Effects of internet addiction on the social aspect of the studied group pre and post instruction (n=252).

Social aspect	Pre		Post		X^2	p-value
Disturbances in social relationships as a result of using the Internet	**No**	**%**	**No**	**%**	**Test**	
▪ very agree	73	29.0	0	0	219.277	0.00**
▪ Agree	156	61.9	76	30.2		
▪ un sure	23	9.1	158	62.7		
▪ disagree	0	0	18	7.1		
▪ very disagree	0	0	0	0		
Take care of what is going online even with distance					162.175	0.00**
▪ very agree	69	27.4	32	12.7		
▪ Agree	44	17.5	34	13.5		
▪ un sure	113	44.8	29	11.5		
▪ disagree	26	10.3	119	47.2		
▪ very disagree	0	0	38	15.1		
Prefer internet on social relation:					112.930	0.00**
▪ very agree	80	31.7	42	16.7		
▪ Agree	49	19.4	63	25.0		
▪ un sure	97	38.5	31	12.3		
▪ disagree	26	10.3	73	29.0		
▪ very disagree	0	0	43	17.1		
Defend privacy on the net and consider it a secret:					164.005	0.00**
▪ very agree	66	26.2	35	13.9		
▪ Agree	61	24.2	18	7.1		
▪ un sure	90	35.7	34	13.5		
▪ disagree	35	13.9	72	28.6		
▪ very disagree	0	0	93	36.9		
Closed idea or secret only on net:					159.262	0.00**
▪ very agree	133	52.8	28	11.1		
▪ Agree	36	14.3	85	33.7		
▪ un sure	57	22.6	33	13.1		
▪ disagree	26	10.3	48	19.0		
▪ very disagree	0	0.0	58	23.0		
preferring time on internet than with family:					140.971	0.00**
▪ very agree	60	23.8	15	6.0		
▪ Agree	52	20.6	53	21.0		
▪ un sure	118	46.9	50	19.8		
▪ disagree	22	8.7	83	32.9		
▪ very disagree	0	0	51	20.2		
having family problems as result of using the Internet:					105.434	0.00**
▪ very agree	97	38.5	39	15.5		
▪ Agree	62	24.6	58	23.0		
▪ un sure	73	29.0	41	16.3		
▪ disagree	20	7.9	71	28.2		
▪ very disagree	0	0	43	17.1		

= insignificant *= significant

Table 4 illustrated that there was statistical significant improvement of the student opinions about adverse effect of internet addiction on the social relation at post instructions than pre instructions (p=0.00).

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Table (5): Adverse effects of internet addiction on the physical health of the studied group pre and post instruction (n=252).

Variable	Pre		Post		X^2	p-value
Headache &blurred vision as a result of using internet:	No	%	No	%		
▪ very agree	79	31.3	0	0	134.575	0.00**
▪ Agree	111	44.0	82	32.5		
▪ un sure	36	14.3	112	44.4		
▪ disagree	26	10.3	58	23.0		
▪ very disagree	0	0	0	0		
Pain & joint inflammation as a result of using internet:					219.277	0.00**
▪ very agree	75	29.8	9	3.6		
▪ Agree	155	61.5	50	19.8		
▪ un sure	22	8.7	39	15.5		
▪ disagree	0	0	88	34.9		
▪ very disagree	0	0	66	26.2		

= insignificant *= significant

Table 5 clarified that there was statistical significant improvement of the student opinions about adverse effect of internet addiction on the physical health at post instructions than pre instructions (p=0.00).

Table (6): Adverse effects of internet addiction on the psychological status of the studied group pre and post instruction (n=252).

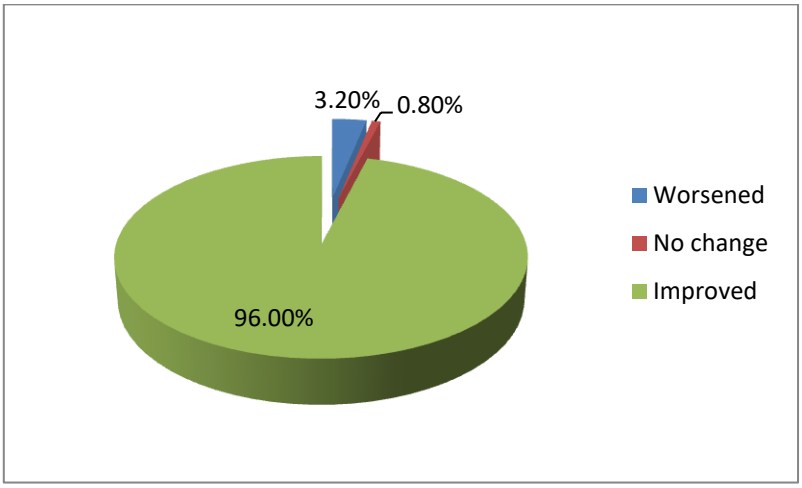
Psychological variable	Pre		Post		X^2	p-value
Feeling bore without internet	No	%	No	%		
▪ very agree	51	20.2	0	0	180.529	0.00**
▪ Agree	70	27.8	52	20.6		
▪ un sure	126	50.0	73	29.0		
▪ disagree	5	2.0	127	50.4		
▪ very disagree	0	0	0	0		
Having anxiety when being not on line					204.424	0.00**
▪ very agree	50	19.8	0	0		
▪ Agree	153	60.7	51	20.2		
▪ un sure	24	9.5	158	62.7		
▪ disagree	25	9.9	43	17.1		
▪ very disagree	0	0	0	0		
Feeling depression when being not on line					109.917	0.00**
▪ very agree	109	43.3	48	19.0		
▪ Agree	43	17.1	74	29.4		
▪ un sure	85	33.7	38	15.1		
▪ disagree	15	6.0	54	21.4		
▪ very disagree	0	0	38	15.1		
Being annoyed if someone bothered me online					175.064	0.00**
▪ very agree	89	35.3	16	6.3		
▪ Agree	58	23.0	51	20.2		
▪ un sure	86	34.1	36	14.3		
▪ disagree	19	7.5	108	42.9		
▪ very disagree	0	.0	41	16.3		
Having insomnia due to overuse internet at night					175.064	0.00**
▪ very agree	82	32.5	45	17.9		
▪ Agree	45	17.9	59	23.4		

▪ un sure ▪ disagree ▪ very disagree	104 21 0	41.3 8.3 0	21 87 40	8.3 34.5 15.9		
Eagerness for using the Internet before anything else ▪ very agree ▪ Agree ▪ un sure ▪ disagree ▪ very disagree	 54 113 65 20 0	 21.4 44.8 25.8 7.9 0	 0 55 118 79 0	 0 21.8 46.8 31.3 0	169.633	0.00**

= insignificant *= significant

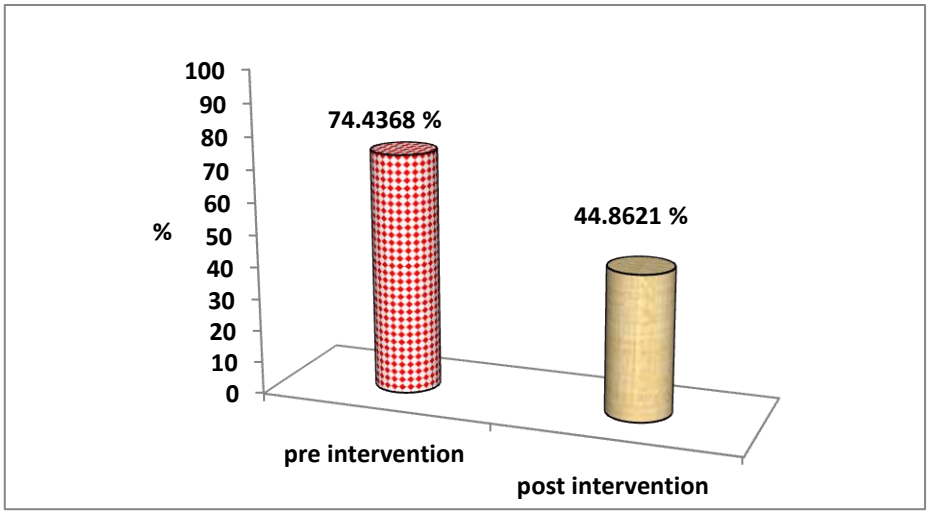
Table 6 showed that there was statistical significant improvement of the student opinions about adverse effect of internet addiction on the psychological health at post instructions than pre instructions (p=0.00).

Figure (5): Improvement of internet addiction degree after receiving the educational instruction **(n=252)**.



This figure summarized the percentage of improvement in internet addiction scale after receiving instruction. It showed that 96.00 of the sample were improved, 0, 80 were no change and 3.20 were worsened.

Figure (6): The percentage of internet addiction among studied group pre and post instruction **(n=252)**.



This figure showedthat there was a statistical significant improvement in the percentage of internet addiction test score in post instruction where mean ±SD 44.8621±11.04276 was lower the score than pre instruction 74.4368±12.716 (p=. 000).

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4. DISCUSSION

Along with new technologies, the Internet has reshaped and improves many aspects of our lives by being integrated in the daily experience. Internet has become more available, offers more services and its usage is growing in every age group (Mihajlov & *et al*., 2017).

Regarding to socio-demographic data, this study revealed that, the percentage of adolescent had internet addiction more than the half of sample compared by young adult (52.8%), this result agree with Gupta, (2018), who reported that, the mean ± SD age of the participants was 19.1 ±1.02 years .Similar finding reported by Marahatta et al., (2015), who found that, the mean ± SD of the age was 19.9 ± 2.8. And Krishnamurthy & Chetlapalli, (2015), who reported that, the initial year's undergraduate study was associated with higher burden of internet addiction .

On the other hand this result disagrees with Kawabe, Horiuchi, Ochi, Oka & Ueno., (2016) who reported that, higher grades among undergraduate students had a higher prevalence of internet addiction & Abadi et al., (2015) who reported that, the mean and standard deviation of students' age were 21.68±4.02 years. This is may be because, as age increases during the faculty's years, it leads to an increase in cognitive maturity.

Following socio-demographic data, the present study findings showed that, the internet addiction in male students was 3.2% and in female students was 96.8% which had a significant difference ($p<0.001$); this result was consistent with the study of Abadi et al, (2015) who reported that, internet addiction rate was higher among girls which 70.6% of samples were female. And Hosseini et al., (2015), who reported that, internet addiction rate was higher among girls (41.47% and $p<0.01$). This could be because boys tend to be active at outdoor relation than girls.

Additionally, the current study found that, the internet addict subject were 52.4% at literary faculties and 47.6% at scientific faculties. This result come in the same line with Desouky et al., (2015) who reported that, 72.5% of addict subject were from the literary faculties and about 49% of scientific faculties. This could be explained by the nature of education in most of practical faculties from academic overload and the high pressure of study demands act as a barrier towards having enough free time to overuse of the internet to a degree of addiction.

Regarding to level of education of mother and father, this study revealed that the highest percentage of the subject had a moderate educated father and mother (47.2%, 49.20% respectively) and only 26.2% had highly educated father & 22 % had highly educated mother. This result was supported by the study of Wang, (2016), who found that, 25.03% had high educated father and 23.4 had high educated mother. This may be illustrating higher paternal education levels as a protective factor against internet addiction.

On the other hand this result did not agree with Desouky et al., (2015), who found that, 48.7% of internet addict had a highly educated father and 45.1% had a highly educated mother. This could be explained by the easiness and freedom access to internet in acquiring academic materials and communication and information technologies has increased our dependence on technology for various aspects of our lives, furthermore readiness of student for overuse of the internet to a degree of addiction.

Regarding to the degree of internet addiction, this study revealed that the subject had mild, moderate, and sever internet addiction (7.6% 75.8% and 16.7% respectively) before intervention. This result disagree with Saied et al., (2016), who reported that, two thirds (64.1%) of the student were average internet users (mild), while only minor percentage of them (2.7%) had problematic internet use (sever degree). And disagree with Abadi et al., (2015), who reported that 20.2% of samples were at risk of addiction and also 0.6% was addicted to internet, and Marahatta et al., (2015), who revealed 1.3% only, were severe internet addicts. This difference may be illustrated by studying done on scientific and literary faculties but others mentioned studies done on scientific faculties only.

Also this result disagree with study of Hosseini et al., (2015), who indicated that, 15% of subjects had average (mild) addiction and 4.2% had severe addiction, and Uddin et al., (2016) who reported that, 20.7% male and 7.7% and female were in the range of mild degree, 47.7% male and 44.5% female were in the range of severe degree, then 27.1% male and 33.9% female were in the range of moderate degree. Here, the differences may be due to more than half of the sample of previous mentioned study were male (52%) which have more unstructured time than female.

In regard to the rate of internet addiction in relation to spending hours per day, the current study showed that, there were significant statistical difference found among, mild, moderate and sever addict, as those who spent more than 6 hours daily were 4.5%, 13.5%, 79.5% respectively. This result supported by Desouky et al., (2015) who reported that ,a significant difference was found between, non- addicts, potential addicts and sever addict according to the time spent using the internet daily, as those who spent more than 4 hours daily were (19.2%, 30.4% and 52% respectively) .

Additionally this result revealed that, the mean ± SD of hours that staying on net daily was 4.69 ± 2.63. This result come in the same line with Gupta et al, (2018), who reported that, the mean number of hours per day of screen duration was 5.4 ±3.28. Also this result supported by Yayan, Arikan, Saban, Baş, Özcan (2017), who they reported that, There was a positive correlation between addiction and the time spent by adolescents on social networking sites, and game sites.

Also this result agree with Salehi et al., (2014) who reported that, internet addiction was significantly higher among students with more hours of daily internet use (P<0.001). And Goel, Subramanyam & Kamath, (2013) who found the association between duration of internet use and internet addiction has been observed in adolescents from Vadodara, and from college students of Mumbai. This can be attributed to easy access to the Internet in nearly all places and all time.

Regarding to the purpose of internet use, the current study found that, the highest percentage of purpose of internet use was social media (46.4%), followed by entertainment (38.1%), this result was supported by Saied et al., (2016), who reported that, contact with friends, relatives and social purposes were reported by the highest percentage of both groups as the main causes of Facebook use. And Desouky, (2015)who reported that, problematic internet users used the internet more for relieving loneliness and entertainment purposes than non- addicts and potential addicts. Kesici & Şahin (2009), who showed that, the internet addiction tends to use the internet more for entertainment purposes and social activities.

But Abadi et al., (2015) reported that the maximum percentage of using Internet 79.5% was belonged to entertainment. Internet addiction as a compensatory mechanism, internet use is a coping venue for limited social skills, coping with low mood, and need to escape or gain status, but regarding to previous mentioned study the difference here may be illustrated by using sample from medical science university; this type of sample has limited unstructured time, so their priorities may be for entertainment than others.

In regard to the preferred device of internet use, this study revealed that, the preferred device was mobile 64.3% followed laptop 20.2%, desktop 12.3% and others 3.2% respectively. Which are similarly to Reda, Rabie, Mohsen & Hassan, (2012), who reported around half of the subject (46.3%) had internet access through their mobile phones among a group of Egyptian adolescents.

Also this result agree with Saied et al., (2016), who found that, most commonly used device was the mobile phone with significant higher percentage (92.4%) among Malaysian students (p=0.000). Abadi et al., (2015), reported that 60.4% of Internet access was by mobile. Also agree with Tabassum Khan and Ahmed (2018), who reported that, over 800 million Facebook users, 350 million people can easily access Facebook through their cell phones. This can be attributed to the easy access to the internet, and presence of mobile with the capability to connect to the Internet and also to Wi-Fi networks in nearly all places.

Regarding to effect of internet addiction on academic performance of the subject, this study found statistical significant decrease of the adverse effect of internet addiction on the academic performance of the subject at post intervention (p=0.00). At pre intervention, around half of the subject neglect home wok due to internet use (very agree, Agree, 24.2%, %21.0respectively), and most of the subject had decline in study score due to over use of the internet (very agree, Agree 54.8%, 36.5%). And around third of the subject spend more time on internet than study (very agree16.7% and agree21.0%).

This result supported by Said et al., (2016), who reported that, the significant negative correlation is present between internet addiction test scores and academic grades of the students and more than two thirds of Egyptian students who participated in this study reported negative impact of Facebook use on their study. Also agree with Tabassum Khan et al., (2018), who stated that, spending too much time on Facebook results in poor academic performance. And Yayan et al., (2017) who stated that, internet addiction mean score of the adolescents stating low school success was found high

Regarding to effect of internet addiction on social relation, this study showed statistical significant decrease of the adverse effect of internet addiction on the social relation of the subject (p=0.00).This result showed that, most of the subject had disturbances in social relationships as a result of using the internet (very agree 29.0%, agree 61.9%), and more than half of

the subject prefer using internet on social relation (very agree 31.7%, agree19.4 %). And nearly two third of the subject had family problems as result of using the internet (very agree 38.5%, Agree 24.6%).

This result was supported by Kamal et al., (2013), who reported that, problematic internet users (PIUs) cut themselves off from their family, friends, and social activities and choose to spend most of their time alone. Similarly Said et al, (2016), they reported that, widespread use of the internet among the adolescents makes them feel alone, and leads to poor family and friends relationships. Also Zhang et al., (2018), who studied "Relationships between Social Support, Loneliness, and Internet Addiction in Chinese", reported that, postsecondary students with internet addiction have aggressive tendencies, and problems with family relationships and social connections.

Regarding to effect of internet addiction on physical health, this study revealed statistical significant decrease of the adverse effect of internet addiction related to the physical health of the subject at post intervention (p=0.00). This result showed about three quadrant of the subject had headache &blurred vision as a result of using internet at pre intervention (very agree 31.3% and agree 44.0%), and most of the subject had Pain & joint inflammation as a result of setting on internet at pre intervention (very agree29.85% and agree 61.5%).

This result was supported by Farooqi et al., (2013), who reported that, the most frequently reported adverse physical health effects of internet addiction were headache, eye irritation and musculoskeletal al pain. Furthermore, this result supported by Inamori et al, (2017), who studied "Network Assisted Questionnaire on Physical and Psychological Health of Computer Users" they reported that, postsecondary students with internet addiction typically experience physical health problems and poor school performance. And Said et al, (2016), who reported that, the most commonly reported adverse effects, were eye irritation, followed by headache then back pain.

Regarding to effect of internet addiction on psychological health, this study showed statistical significant decrease of the adverse effect of internet addiction on the psychological health of the subject at post intervention (p=0.00) this result showed that, most of the subject having anxiety when being not on line (very agree19.8% and agree 60.7%), and higher percentage of being annoyed if someone bothered me online at pre intervention (very agree35.3% and agree 23.0%).

This result come in line with Kawabe et al., (2016), who reported that, the relatively high internet addiction test scores in the possibly addicted group were positively correlated with depression and suicidal ideation, and Ho, Zhang, Tsang, Toh, Pan, Lu, et al., (2014), who showed that, anxiety and internet addiction who found that, to be associated among college students. additionally this result agree with Gamal, Alzayyat & Ahmad, (2016), who found a strong positive association between stress and risk of internet addiction. And Desouky et al., (2015), reported that, 6.1% of students experienced severe psychological problems and 31.9% experienced distress.

Following result of effect of internet addiction on psychological health, higher percentage of subject feeling depression when being not on line (very agree 43.3%; agree 17.1%). This result supported by Goel &et al., (2013), who found a strong positive association between depression and IA, and agree with Younes, Halawi, Jabbour, El Osta, Karam, Hajj & et al., (2016), who revealed depression to be associated with the risk of internet addiction.

Furthermore this result agree with Uddin et al., (2016), who reported that, severe psychological depression was 39.2% and moderate depression was reported for 31.3% students whereas mild depression was reported for only 16.5% students. This may be due to online communication easier and less intimidating than real-world communication owing to anonymity. Therefore using internet helps them to overcome their interpersonal difficulties.

Following psychological effects more than half of subject having insomnia due to misuse of internet at night (very agree32.5%; agree 17.9%). this result supported by Park, et al., (2018), who studied "Moderating Effects of Depressive Symptoms on The Relationship Between Problematic Use of The Internet and Sleep Problems in Korean adolescents" they reported that, The prevalence of sleep problems in adolescents is very substantial; the prevalence of insomnia associated with internet addiction in adolescents is as high as 20: 30% .

Regarding to effect of intervention on internet addiction test, the current study revealed that, the percentage of internet addiction was significantly reduced at post-test of mean± SD 44.8621±11.04276 compared by pre-test mean ± SD 74.4368±12.71616 with (P =0.000). This result supported by Maheri, et al., (2017), who revealed that, after intervention, the prevalence of internet addiction there was significantly reduced in the intervention group compared to the control group ($P < 0.04$).

5. CONCLUSION

Based on discussed items of this study it can be concluded by presence of high prevalence of internet addiction among faculties' students of Menofia University either scientifically or literary. And associated with physical problems as eye irritation, headache & joint inflammation, also social problem as social relation disturbance, Problem with family and psychological problem as; depression, anxiety, and stress. This means that the needs of students for prevention of Internet addiction are multidimensional and the instruction that introduced was necessary and affects internet addiction positively.

6. RECOMMENDATIONS

Based on The findings of the study the following important recommendations are proposed:

- Educational intervention Raising student's awareness about the danger of internet addiction related to physical, psychological & social health
- University students need to learn how to make a better balanced relationship between internet and social media use versus their academic study (time management).
- **Limiting Computer Time** by Using an alarm clock or timer, try using the computer at the library, call people instead of sending instant messages or texts, avoid using the Internet without a specific goal and put the computer in an open space for everyone and easy to access
- **Pursuing Alternative Activities** as put obligations first (research and study), hang out with friends, returns to the exercise and the activities loved before addiction to the Internet, such as: reading the Koran, sports, spending time with the family and social visits.

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