

The Relationship between Emotional Intelligence and Technology Addiction among University Students

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Abstract

Introduction: Today the prevalence of Internet addiction in youth could be a serious crisis as tantamount as drug addiction in personal life, family relationships, social behavior and academic status. Studies show that there is a positive relationship between emotional intelligence and social skills. Emotional intelligence includes understanding, reasoning and handling our emotion. Non-cognitive skills enable us to get success in dealing with environmental conditions. The vulnerability of high emotional intelligent person is much more than others; the aim of this study was examining the relationship between Internet addiction, virtual environments and emotional intelligence.

Methods: This cross-sectional survey was conducted on 201 students who were randomly selected. The survey instrument was a tripliod questionnaire: demographic information including age, sex, etc., Young's Internet Addiction Test (IAT), which contains 20 questions about symptoms of Internet addiction graded by Likert scale score of 1 (never) to grade 5 (always), emotional intelligence questionnaire including 33 questions (Schutte 1997) about three categories of emotion: perception, planning and productivity. The data analyzed by computer software SPSS 16 (ANOVA, 95% confidence).

Results: According to findings of this study, %38.3 of students is Internet addicted in general, %43.8 had mild dependency, %15.9 depended to medium and %2 had severe dependency. The average score of emotional intelligence among college students was %118.99 with a standard deviation of 21.12. There was an inverse relationship between the severity of Internet addiction and emotional intelligence.

Conclusion: Since prevention is better than cure, we could replace proper use of computers, Internet and its facility by wrong ways of using the Internet, which can affect social dimensions of personality, through education in family and training centers.

Key words: Internet addiction, Emotional intelligence, Social skills

Introduction

Researchers believe that Emotional Intelligence (EI) is a set of skills that can help students to control their experiences. Goldman introduces EI as ability to incite and confront disappointment controlling stress of mental vortex and reinforcing hopefulness.¹ “Today’s workers should have skills like team working and group developing. They tend to gain these skills during reading and working rather than having academic knowledge”.²

EI of medical students is strong indicator of success in their final exams; however more studies on academic achievement and modification due to medical education could be useful (Austin et al 2005). Also studies show that EI score of female students is higher.³ Spending a lot of time to computer games can be extremely destructive for education, work and socialize in real life.⁴⁻⁶ Studies suggest that taking into account the general criteria for behavioral addiction, like creating an unstable and unbalanced history of psychiatric treatment, mental disorder and psychiatric relapse⁷, %12 of computer gamers had at least three diagnostic signs of addiction.⁸ Studies done in Korea and Western countries show that “likelihood of Internet Addiction (IA) among computer gamers is more than web users and sport gamers, also score of online gamers is much as alcoholic and gamblers”.⁹ Since the advent of TV, politics and researchers have a great attention to time spent on electrical media and their impact on daily activity.¹⁰ Internet dependency was used in email.¹¹ Most of internet addicted users are teenager and male, however it is a common problem between all social groups in different ages.¹²

During past years, researchers start studying about IA¹³, its impact on social activities^{14,15} and psychiatric health.^{16,17} However there are numerous studies about side effect of modern technology on mental health and its improper adaptation to signs of stress and psychiatric disorders.¹⁸ Whang, Lee & Chang found that there is a significant relation between internet use and psychiatric signs like aloneness, depression and obsession. Also there is significant relation between internet use and self-confidence.^{18,19} Another research shows that there is a meaningful relation between psychiatric signs and stress.²⁰ Spending time and a lot of money to virtual activities reduce people willing to do social and academic activities and cause to efficiency destruction.²¹ Some researchers express the relation between low EI and addiction problems.^{22,23} There are a few studies about IA and EI relationship. It was found a great relation between

internet use and aloneness and also EI. This study done by attention to importance of subject and its coefficient to youth to show the relation between internet and virtual environment addiction and EI of medical students.

Methods & Materials

This is a cross-sectional descriptive study. Participants were 201 medical students selected randomly. Data collection tool was a triple-section questionnaire; first section was about demographic information (age, gender, educational degree, weekly internet usage, place and reason of internet use); second part was Young's Internet Addiction Test (IAT) contain 20 question about IA signs graded from always to never (5: always, 0: never). Total score varied 0-100. Scores divided to 4 groups; normal (<21), low (21-49), moderate (50-79) and sever (80-100) dependency; third part was EI scale of Schutte et al (1997). Its items show expressing emotions to others, emotion regulation in others, using affects to solve social and interpersonal problems. It is classified to five-stage LIKERT scale (1: completely disagree, 5: completely agree).

Statistical Analysis

Data was entered using the Epi Info computer program after which it was transferred to the SPSS, version 15, and program for analysis. Univariate analyses were performed by use of Chi - square test and variance analyze in %95 confidence level.

Results

Average age of participants was 23.26 ± 3.36 which ranged 18-40. %70.4 was under 24 year and %2.5 was more than 30 years old. %68.2 was male and %15.1 got married. Education degree of %3 was associate degree, %54.5 bachelors, %3 masters and %39.5 PhD. %16.1 of students had depression history and %7.7 use antidepressant drugs. Average time of computer use was 10.49 ± 9.24 hours per week ranged 0-54 hours. %1 of students didn't use computer at all, %5.1 use it just for entertainment, %25 for education –profession activity, %15.4 use it as communication device and others had multipurpose use of computer. %43.8 expressed they spend some time to play computer games. The average of this time was 4.39 ± 3.86 hours per. %1 of participant didn't use internet at all, %89.4 and %96 use it 38 and more than 38 hours per week, respectively. %9.2 applied internet to mail, %7.7 to down loud music and picture, %1.5 to game online, %1.2 to chat, %33.8 to read articles and others to have multipurpose use. %1.5 got familiar with internet during last year, %10.1 between 1 to 2 years, and %88.4 more than 2 years.

%38.3 was in normal level, %43.8 had mild dependency, %15.9 had moderate dependency and %2 had severed dependency to internet. The average of EI score of students was 118.99 ± 21.12 which ranged 41 to 165. IA score was %75 and %55.5 in males and females showing more dependency to internet in males ($p < 0.05$). IA measure was %55.6 in married and %61.8 in single people, so there was no meaningful difference between these two groups.

There wasn't any meaningful relation between age and IA ($p > 0.05$). The relation between education grade and IA was significant. IA had most prevalence in PhD students ($p < 0.05$). The IA prevalence in students with depression history was more than others ($p < 0.05$). There was a meaningful relation between internet usage time per week and IA severity ($p < 0.05$). Duration of acquaintance with computer didn't have a meaningful statistics relation with IA ($p > 0.05$) (Table 1).

IA score was equal in regular and variable time users ($p > 0.05$). The average of EI score was 118.12 ± 22.8 and 119.4 ± 20.3 in females and males, respectively, Showing no meaningful statistics differences. The average of EI score was 123 ± 19.6 and 118.25 ± 20.5 in married and singles. EI score was 122.94 ± 20.8 in non internet addicted, 121.3 ± 17.4 in mild addicted, 104.4 ± 24.6 in moderate addicted and 107.75 ± 26.5 in sever addicted students ($p < 0.05$). Correlation coefficient of EI and IA score was $r = -0.303$, meaning negative and moderate correction ($p < 0.05$) (Diagram 1).

As it's observed in table 2, $R^2 = 0.087$ which means only %9 of IA variance determine with EI variable. The amount of R (0.303) and F index show that linear regression model is good to forecast. The content of table 2 shows that β coefficient of EI is positive (0.303). The meaningful level of T-test score shows that there is a significant correlation between these two variables and we can forecast IA according EI. According to the correlation between these two variables, it is easy to judge about 0.303 unit decline of EI after 1 unit increase of IA.

Discussion

Current study done to evaluate relation between EI and IA. Findings show that self evaluation of EI scores has a negative relation with IA. In the other word, higher EI scored people can control their internet dependency over all those findings confirm researchers showing coefficient of EI and special adaptation. One study by Austin and colleagues (2004) in Canada and Scotland on 500 and 204 participants showed that there is a negative relation between alcohol use and EI while the relation between EI, life satisfaction, social relation and qualification is positive. This study showed that EI have a great relation with personality and social relation, its qualification and life satisfaction. But more studies are necessary to investigate the relation between other variables.²⁵ Mukti Shah et al (2008) studied 197 students aged 18-25 to show the relation

between EI and problem solving ways. They found that emotional management impact on problem solving ability, problem facing and continence. Also sex differentiation didn't play a great role on problem solving ability.²⁶

A study by Sjoberg (2008) on 94 male and 59 female showed that EI score of females is more than males. %17 participants were single and %77.1 started family life.²⁷ Beranuy et al (2009) studied 404 students and found that there is a significant relation between low EI score and Excessive internet usage. Mobile and internet use by females was less than males because of their tendency to social relation. Males use mobile and internet for their economic activities which confirms current study's findings.²⁸ Parker et al (2008) found that EI is a relatively good index to evaluate addiction like behaviors, for example excessive use of internet and online games. Also, there was a significant relation between EI and IA.²⁹ Ko et al (2008) reached similar results and found that there is a relation between IA and alcohol use.³⁰ Xiuqin et al (2010) done a study on 304 teenager and found that internet dependent people have more psychological disorder than control group. Results of this study showed that IA Is associated with psychological sign and behavior like introspective and isolation.³¹

Finding of this study showed that students with high EI score are less internet addicted. Interactive practice and EI score are different explanation of IA prevention to make better individual and social relation.

Conflict of interest: The authors declare that they have no conflicts of interest.

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Table 1: Relation between internet addiction and other research variables

	Internet Addiction				Statistical result
	Normal	Weak	Moderate	Severe	
Gender					
male	%25	%43/8	%28/1	%3/1	p<0/05
female	%44/5	%43/8	%10/2	%1/5	
Marital status					
married	%44/4	%44/4	%11/1	0	P>0/05
single	%38/2	%41/4	%17/8	%2/6	
Standard deviation + average age	22/87+3/44	23/77+3/5	22/72+2/82	23/75+0/95	P>0/05
Educational degree					
Associate degree	%50	%33/3	%16/7	%0	p<0/05
Bachelors	%43/1	%36/7	%16/5	%3/7	
Masters	%0	%100	%0	%0	
PhD	%32/9	%50/6	%16/5	%0	
Depression Record					
Yes	%28/1	%34/4	%34/4	%3/1	p<0/05
No	%39/5	%46/1	%12/6	%1/8	
Use of computer per week					
Stand deviation + average hours	6/34+6/16	13/8+13/1	14/42+10/6	15+4/2	p<0/05
Duration of acquaintance with computer					
less than one year	%0	%0	%100	%0	P>0/05
1-2 year	%60	%25	%15	%0	
More than 2 years					

	%36/9	%46	%14/8	%2	
Time of using internet					
Morning	72/7	18/2	9/1	0	p>0/05
Evening	40/7	44/4	14/8	0	
Night	37/5	43/8	17/2	1/6	
Midnight	27/3	54/5	18/2	0	
Variable	36	44/2	16/3	3/5	
Stand deviation + average Emotional Intelligence	122/9±20/8	121/3±17/4	104/4±24/7	107/7±26/6	P<0/05

Table 2: Multi regression analyze results to forecast IA of students according to EI

Meaning level	T	Standard β coefficient	Un standard β coefficient	Predictive
0/000	8/39		64/095	Constant number
0/000	-4/49	-0/303	-0/284	Emotional Intelligence

R=0/303

R²=0/092

Modified R²=0/087

F= 20/15

P=1/000

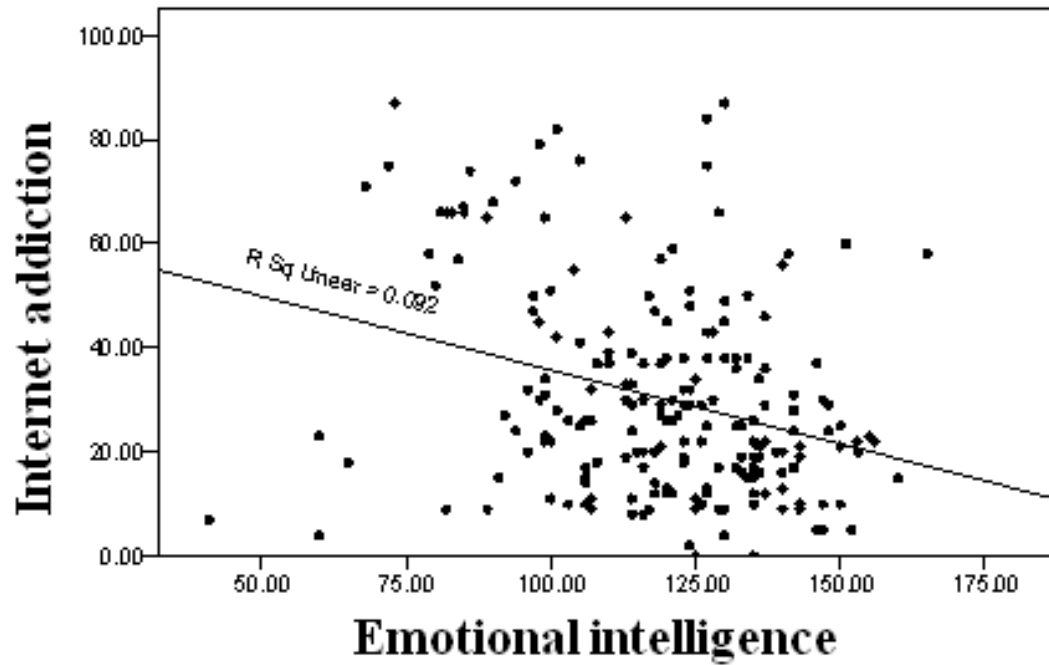


Diagram 1: Correlation between Emotional Intelligence and Internet Addiction