Journal of Fundamentals of Mental Health

Mashhad University of Medical Sciences

Psychiatry and Behavioral Sciences Research Center

Original Article

Assessment of using of emerging communication tools (cell phone, internet and satellite) among young adults and its association with anxiety, depression and stress

Elaheh Poorakbaran

M.Sc. in clinical psychology, Instructor of Islamic Azad University, Young Researchers and Elite Club, Branch of Torbat-e-Heydarieh, Torbat-e-Heydarieh,Iran

Abstract

Introduction: According to formation of emerging communication tools and their effects in community, this study aimed to investigate the use of these tools (cell phone, internet and satellite) among young adults in Torbat-e-Heydarieh and its relation with anxiety, depression and stress.

Materials and Methods: In this descriptive-correlative study that conducted in Torbat-e-Heydarieh (summer 2014) numbers of 209 young adults (129 men and 80 women) were selected through randomized sampling method and they fulfilled the questionnaires of Depression, Anxiety, Stress Scale (DASS-21), Yang Internet Addiction, Cell Phone Internet Addiction and demographic form. Data analyzed by descriptive statistics, t-test sample group, one factor variation analysis and Pearson coefficient.

Results: The use of cell phone, internet and satellite among young adults in Torbat-e-Heydarieh were higher than mean of our community. Also the use of these tools among men and range of age 20-30 years were higher significantly (P=0.000). In addition, results showed that the anxiety scores were higher in use of cell phone and the anxiety and stress scores were higher in use of internet, and the depression and stress scores were higher in use of satellite significantly (P<0.05).

Conclusion: Based on the results the use of emerging communication tools is high and increase of use of them relates to higher scores of stress, depression and anxiety.

Keywords: Anxiety, Cell phone, Depression, Internet, Satellite, Stress, Young adults

Please cite this paper as:
Poorakbaran E. Assessment of using of emerging communication tools (cell phone, internet and satellite among young adults and its association with anxiety, depression and stress. Journal of Fundamentals of Mental Health 2015 Sep-Oct; 17(5): 254-9.

Introduction

Internet was introduced into Iran in 1373 and since then the statistics of Internet users have been increasing; So that based on the report of the Ministry of Communications and Information Technology, in recent years the number of Internet users in the country has become more than twenty-five times (1). Studies have shown that Iran is ranked 87 among the178 countries from point of view of benefit of the internet that is situated among the intermediate countries based on the classification of the International Telecommunication Union. 3% of the users are young people. Average time spent on the Internet is estimated 52 minutes per week (1). Along with the increasingly widespread access to the Internet, we are witnessing a kind of dependence called Internet addiction which is a subject to the growing era of information technology. Addictions means creating the conditions in which people physically and mentally are dependence to a particular substance, especially drug. Many researchers apply the concept of addiction to explain certain kinds of suspicious behavior, because the findings and signs of addiction have also seen in this case. Types of non-dependence on a substance may be classified as an addiction treatment center. Internet addiction can be classified in this kind of addiction (2,3).

The employment of mental disorder, uncontrolled desire or behavior is known due to the computer or uses the Internet that eventually leads to the disturbance or stress (4). Like other forms of addiction, internet dependency has some symptoms such as anxiety, depression, irritability, obsessive

***Corresponding Author:** Islamic Azad University, Branch of Torbat-e-Heydarieh, Torbat-e-Heydarieh, Iran
poorakbaran@rocketmail.com
Received: Sep. 28, 2014
Accepted: Mar. 09, 2015

thinking, detachment and fragmentation of social relations. On the other hand, although people relationships grow in the virtual world, their relationships are reduced in the real world and the potential loss of their academic performance goes up (5).

Although the Internet is a wonderful technology, affects social skills. Social skills are known as a complex process that gives him the ability to treat others that consider him as an efficient person and should have the skills required performing the targeted and successful behavior. Social skills encompass a range of various abilities such as emotional expression, self-regulation, social resilience, social sensitivity and assertiveness (6).

Each of which contains a subset of the other sub-requirements. Emotional expression as the ability to understand and express emotions in interpersonal relations includes skills such as anger management, open conflict and apologies (7). Self-regulation as an integrated behavioral process is consisting of a set of useful behaviors that influences learning and covers skills such as eye contact, control of anxiety and they reward themselves. Social sensitivity as the ability of encoding nonverbal cues includes listening skills, understanding feelings of others and respond appropriately to them. Social resilience as the ability to inhibit a sense of self in the face of stressful situations such as introducing yourself to others and abilities to inhibit the situation is worrying. Assertiveness is another component of social skills that gives a person the ability to act in their interest without violating the rights of others and express their feelings honestly and comprises of skills such as asking for help and helping others, and the skills to say no, thank others (8). Because in internet connection unlike face to face communication there is more flexibility, individuals can edit or delete negative information about them; this relationship continues and leads to deficits in social skills (9). When the person was addicted to the Internet, his motivation to interact with others is low, which has negative effects on the relationship between the individual and his social interactions (10). So far, few studies have been conducted that show the effects of Internet dependence in the loss of social skills and social isolation in internet addicts (11-17).

Satellites are television networks that their broadcasts originate outside our borders and cultural policies of the Islamic Republic of Iran have not authority on them and they can advertise freely. One of the features of the satellite networks is that the borders are not restricted in providing the advertisement, thus, the kind of goods with attention to citizen trends without constraints is the feature of satellite network. Satellite networks with an attractive sound, image and movement intended to encourage audience to buy goods and intervene to buy in the decision making process. Therefore, knowing his audience, his interests and understanding the influence message can create suitable conditions for advertisement. Satellite is one of the critical means of advertising and broadcasts ads before, after and between prime programs which can attract the attention of millions of people in the world and it is important. Although Iran can not be considered among the intelligence community because the appropriate information structure has not yet achieved; however, access to and use of the Internet and satellite channels in specific groups, particularly young people is part of their everyday life (18).

One of the communication tools is cell phone and one of major bad effects of cell phones is the removal of privacy and convenient access of a variety of adolescent and adult women to various kinds of information that could put him at risk (19).

Also according to the conducted researches, use more than normal of these communication tools such as cell phone especially among young people can relates with psychological problems such as depressive symptoms and sleep problems (20).

According to various studies have been carried out about cell phone, internet and satellite, this research seeks to find the amount of usage of cell phones, internet and satellite and their relation with depression, anxiety and stress among young people in Torbat-e-Heydarieh.

Materials and Methods

The statistical community of this descriptive-correlative study included of all young people in range of 15-29 years (based on the definition of National Youth Organization) in Torbat-e-Heydarieh. According Morgan formula the sample calculated as 250 persons that they were selected by available sampling method. Number of 209 persons (129 men and 80 women) fulfilled all questionnaires so for more accuracy, these samples were assessed.

Research instruments

A) Depression, Anxiety and Stress Scale (DASS-21): Depression, anxiety and stress scale, have made by Lovibond (1995) due to the overlap of depression and anxiety, in order to define and measure the constructs of anxiety and Depression. Scale The scale is actually a set of three self-measuring that has been developed to measure the negative emotional states of depression, anxiety and stress.

Each scale consists of 5 items in this questionnaire; similarly, individual scores on scales of anxiety, depression and stress are obtained (21,22). Samani et al. evaluated the re-test validity of this scale in depression, anxiety and stress respectively as 0.80, 0.76 and 0.77 and α Cronbach evaluated in depression, anxiety and stress subscales respectively as 0.81, 0.74 and 0.78 (23).

B) Young internet addiction questionnaire: Internet addiction questionnaire: This questionnaire was made by Young in 1996. It was designed in 20 items and scored in Likert method. The items were designed based on the diagnosis of pathological gambling of the last diagnostic and statistical manual for mental disorders for diagnosis of pathological gambling. According to this inventory, people divide into 3 groups: normal user (score of 20-49), the user with problems that they induced by use of internet (score of 50-79) and the user who addicts to internet and he/she needs treatment (score of 80-100). In Young et al. study, the internal consistency of this instrument reported higher than 0.92 and its retest validity was significant (24). Alavi et al. reported α=0.88, validity of half=0.72 and retest=0.82 (25).

C) Questionnaire addiction to cell phones: This test was developed in 2005 by Bianchi and Philips and its purpose is to measure addiction to cell phones. It contains 17 questions, the scoring method is Likert scale from 1 to 5 degrees and the maximum score is 85. The higher the score received, the greater dangers of addiction and symptoms we have. The reliability of this test is obtained from Cronbach's alpha 0.83 and 0.76 and its validity is 0.89. Naderi and Haghshenas evaluated the validity and reliability of this scale. (26). They reported coefficient as r=0.30, Cronbach's alpha as 0.80 and 0.57 (26).

D) Demographic form: This form included gender and age.

There is no questionnaire about satellites addiction and its harm effects so the researcher ask participants about having satellite, type of movies, number of hours and the reason of watching the movies of satellite. To analyze the data gathered in this study, in order to achieve the research objectives, descriptive statistics, one-group t test, ANOVA and Pearson correlation were used.

Results

In this research 209 young persons of Torbat-e-Heydarieh participated. Table 1 presents the results of the extent of usage of cell phones, internet and satellite. According to the case that we intended 17 questions for cell phone and 20 questions for internet and seven questions for satellite, average of the minimum and maximum possible imaginary mean score given 49 for cell phone, 44 for the internet and 17 for satellite have been intended and were compared using one-sample t test.

Table 1. Comparisons of the usage of cell phones, internet and satellite with the average of population

	Number	Mean	Standard deviation	Degrees of freedom	t	Significance level
Cell phones	208	47.538	6.158	207	111.322	0.000
Internet	208	43.802	7.871	207	80.252	0.000
Satellite TV	208	17.567	6.293	207	40.257	0.000

The results of Table 1 show that the usage of cell phones, internet and satellite is more than average of population but according to the hypothetical means, the use of cell phones (111.322 vs 47.538) was more than the internet (80.252 vs 43.802) and satellite (40.257 vs 17.567).

Table 2 shows the usage of cell phones, internet and satellite considering to gender.

According to 17 questions for the cell phones to, 20 questions for internet and 7 questions for satellite, The average of the minimum and maximum possible imaginary mean score for cell phones 50 in men and 48 in women and for internet 43 men in men, 44 for women and for satellites19 in men and 16 in women is considered and were compared using one-sample t test.

Table 2. Comparisons of the usage of cell phones, internet and satellite in men and women

Variable	Gender	Number	Mean	Standard deviation	Degrees of freedom	t	Significance level
Cell phones	Men	129	51.007	0.088	128	130.000	0.000
	Women	80	46.537	5.654	79	73.613	0.000
Internet	Men	129	64.445	8.720	127	57.663	0.000
	Women	80	42.775	6.195	79	61.757	0.000
Satellite	Men	129	18.299	358	126	32.431	0.000
	Women	80	16.419	6.051	80	24.420	0.000

The results in Table 2 show that the rate of use of cell phones, internet and satellite among is significant according to gender and it is more than the mean of population but according to the hypothetical means, the use of cell phones was more than the internet and satellite.

Table 3 determines the use of cell phones, internet and satellite considering to age groups and ANOVA was used.

Table 3. Comparisons of the usage of cell phones, internet and satellite in AGE GROUPS

Variable	Age group	Number	Mean	Standard deviation	F	Significance level
Cell phones	15-20 years	18	4.76	0.913	14.168	0.000
	20-25 years	118	5.94	2.01		
	25-29 years	73	5.38	1.80		
Internet	15-20 years	18	5.33	1.68	6.536	0.002
	20-25 years	118	5.77	1.56		
	25-29 years	73	5.74	1.99		
Satellite TV	15-20 years	18	7.61	2.42	37.264	0.000
	20-25 years	118	8.79	2.09		
	25-29 years	73	8.45	2.51		

According to Table 3 the use of cell phones, internet and satellite are different according to age groups and the differences were significant.

The relationship between the use of cell phones, internet and satellite with depression, anxiety and stress assessed through Pearson correlation coefficient and the results are shown in Table 4.

Table 4. The correlation between the use of cell phones, internet and satellite with anxiety, depression and stress

Instrument	Variable	Correlation coefficient	Significance level
Cell phones	Anxiety	0.63	0.000
	Depression	0.048	0.136
	Stress	0.124	0.089
Internet	Anxiety	0.59	0.001
	Depression	0.036	0.253
	Stress	0.58	0.005
Satellite TV	Anxiety	0.112	0.201
	Depression	0.65	0.000
	Stress	0.57	0.001

According to the results in Table 4, it can be suggested that the extent of use of communication tools are associated with depression, anxiety and stress significantly (cell phone use with anxiety, use of internet with stress and anxiety and use of satellite with stress and depression).

Discussion

Due to the increasing use of emergent communication tools in the world, much concern has created about the possible effects of radiation on the health of living beings. One of the major problems of our society and many societies are to face with the problem of the way of using technology. The most serious damage of these tools is to remove the space between girls and boys which is considered the pathologic and harm area (26).

The results of this study show that the usage of cell phones, internet and satellite among young adults in Torbat-e-Heydarieh is inappropriate and more than the average of population. Also the use of cell phones, internet and satellite among is significant according to gender and it is more than the mean of population. In addition, the appropriate use of these tools in age group of 20-25 years is more than other age groups.

Many researchers believe that cell phone use causes the formation of an addiction which is destructive like drug addiction, alcohol, overeating, immoral relationship, computer games and internet. In fact, addiction to cell phone use is a strong inclination to the conduct that takes place and the feeling that gives the person before and after that.

Addicts to cell phone, get away from friends and family, they seek seclusion, they recoil age and social priorities, such as education and employment, when the phone is not in their reach, it is sad to think of being away from it (9,10).

Also, the results of the present study about significant relation between use of cell phone and anxiety accords to the conducted researches about exceed use of communication tools such as cell phone especially among young people and its relation with psychological problems such as depressive symptoms and sleep problems (20).

Another finding that was observed in this study was the improper use of internet, which also has adverse effects, such as the disappearance of bad immoral relationships among adolescents and young people, rise to violent mood because of watching violent movies, propagation of incorrect western culture and cultural elements in the community through internet. Some values of other cultures enter into our society which does not concord with the other elements of our culture and a cultural shift

takes place, change the values and norms of society, replacing the material thinking and secularism instead of spiritual and morality, psychological complications resulting from watching the vulgar and obscene pictures including: feelings of guilt, anxiety, obsessive behaviors and etc., increasing social and psychological distortions and aberrations.

The findings are aligned with research findings that have been reported by Ghasemzadeh et al. who examined the relationship between Internet addiction and social skills to loneliness in high school girls in Tehran. In explaining these findings, we can say, when a person is addicted to internet, his motivation to interact with others will be low. This has negative effects on personal relationships and social interactions (12). Moreover, using the internet cause feeling of unhappiness, loneliness and generally decline in mental health. People who use the internet more than usual, maintain less friendships, they spend less time with their relatives, experience more stressors and feel more loneliness and depression (10,11). These findings accord to the relation between internet, anxiety and stress in the present study.

In addition, the findings of this research accord to the conducted researchers that they believe satellite programs and advertisements is one of the social problems. Programs of satellite may lead to sense of guilt, reduction in couples' satisfaction, expensive style of life, false relaxation with addiction to drugs and etc. (27).

The present study has some limitations such as lack of participants' corporation and sample selection among population of one city that it limits generalization to other cities so the future studies may be conducted in regarding to these limitations and other characteristics such as marriage status and education level.

Conclusion

Based on the results the use of emerging communication tools is high and increase of use of them relates to higher scores of stress, depression and anxiety.

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