Original Article

Comparison of national and personal identity between person with internet addiction disorder and normal internet users

Seyyed Salman Alavi, Fereshte Jannatifard[1], Mohammad R. Maracy[2], Hamed Alaghemandan[3], Mehrdad Setare[4]

Psychiatry and Psychology Research Center, Tehran University of Medical Sciences, [1]Ministry of Education, Tehran, [2]Department of Epidemiology and Biostatistics, School of Health, Isfahan University of Medical Sciences, [3]Hazrate Zahra Hospital, [4]Forensic Medicine Organization, Isfahan, Iran

ABSTRACT

Backgrounds: The present study was carried out in order to compare national and personal identity and their subscales in internet addicts and nonaddicts. **Materials and Methods:** This study was a descriptive-analytical research, and was carried out on 384 student internet users in different universities in the city of Isfahan who were selected using quota sampling. Subjects completed the questionnaires, then, subscales of personal and national identity questionnaires in internet addict and nonaddict were analyzed via $SPSS_{16}$ software. **Results:** Results indicated a significant difference between the scores of national identity and personal identity as well as all subscales in internet addicts and nonaddicts, except for national heritage and homeland defence factors. In addition, there was a negative and significant relationship between addiction to internet and personal and national identity, except for the fourth and fifth factors of national identity (viewpoints of others considering the national group and homeland defence). Moreover, after controlling for the sex variable, internet addiction had an effect on personal and national identity. **Conclusion:** The findings of this research indicate that an excess of internet use and overinvolvement in cyberspace and the addiction to them, could be associated with defects in some aspects of national and personal identity.

Key words: Internet addiction, internet user, national identity, personal identity

INTRODUCTION

The issue of identity has always been a subject of interest among psychologists. The attachment to virtual spaces among the youth, especially in recent decades, has led to an increase in anxiety and depression, as well as identity crises rooted in modern global developments, and encompassing a wide range of personal, national, religious, and social identities. Since the majority of internet users are the youth and adolescents, a group dealing with rapid physiological, bodily and psychological changes, it should come as no surprise that the same group are more subject to the consequences of internet use and involvement in virtual space, as they are passing the stages of identity formation and entering adulthood.[1]

Adolescence and youth are among the most sensitive and decisive stages of an individual's lifetime, and a number of scholars such as Marcia (1991), consider adolescence to be a stage of destruction in the course of identity construction. Therefore, electronic media such as computers, the internet, and television, and their possible inappropriate use can

Address for correspondence: Hamed Alaghemandan,
Hazrate Zahra Hospital,
Isfahan, Iran. Tel: +9821-9133100979.
E-mail: h.alaghemandan@live.com

This article may be cited as: Alavi SS, Jannatifard F, Maracy MR, Alaghemandan H, Setare M. Comparison of national and personal identity between person with internet addiction disorder and normal internet users. J Edu Health Promot 2014;3:42.

deeply influence identity formation. These media can exert their influence in three levels of personal identity, national identity, and sexual identity.[2]

Since the present era could be rightfully called the age of communication, mass media and specifically the internet and their related perversions could form relationships with our values, national beliefs and our identity in general, and influence them. This phenomenon could in turn inflict serious harm on social culture and beliefs through the formation of a cultural posteriority. Taking into consideration the brilliant cultural and scientific history of the country, having self-confidence, maintaining control on emotions and excitements, and a full comprehension of the appropriate and basic principles of internet use can protect us from passive behavior and becoming overenchanted with this communication network, and reveal to us the proper exploitation of this omnipresent phenomenon.

Stefanescu *et al.* (2007), who carried out their study on 15--18-year-old students in seven schools, contend that internet use is related to different aspects of personality (personal, national, etc.).[3]

In a study on students, Huang stated that different levels of internet addiction are associated with the identity and intimacy crisis mentioned in Erikson's theory of psychosocial development.[4]

According to Funk and Buchman (1996), exposure to media such as the internet and satellite channels could affect people's viewpoints, behavior, and identity. Continuous exposures can have negative effects in the long run, and lead to a decrease in empathy, lack of inhibition, aggressive attitudes, lack of national and religious affiliation, and viewing the world as a dangerous place.[5]

Gruenhage, Vingates, and Vitalary (1985) discovered that individuals who own a personal computer significantly spent more time by themselves and less time with their family and friends. This seclusion and solitude lead to a lessening of social interaction on the part of the individual, a disordered identity and finally a decline in social skills.[6]

Hafeznia *et al.* (2006) stated that the spread of globalization processes in the form of information technology and communication (satellite and internet) are associated with national identity. In other words, along with the increase in the utilization of information technology, there has been a corresponding decline in national affections. In addition, through the reinforcement of transnational and infra-national forces, globalization has led to the fading of national affections among students.[7]

Presence in cyberspace and the use of internet, especially in a continuous and incessant fashion---not marginally or episodically---and with professional or semi-professional motivations or even as a leisure activity, considering the features, specificities, possibilities and particular functions of this space, and with regard to the social, political, and cultural status of the youth in our metropolitan cities, exert profound influence on various aspects of identity and, hence, the lifestyle of Iranian internet users and the Iranian youth in particular, as the major division of individuals active and involved in cyberspace.[8] Therefore, based on their real world objective and subjective mental structures, as well as their type and amount of internet use, Iranian internet users will gradually come under its profound and significant influence. The issue of national and religious identity of the youth, considering their large population as well as their constructive role in the future of the country, is of particular importance. In our society, young people constitute a high percentage of the country's population and this issue is of great importance when it comes to young people; because in each society, due to their possession of abundant power and capability, the youth are able to exert decisive influence on the future of the society. In addition, a prolonged presence in the cyberspace may lead to a one way acculturation as well as extreme impressions of norms and values in different communicational and social realms, which can in turn influence the national and traditional affections of the users through the reinforcement of globalism. Therefore, in the present study, we aim to analyze and discuss the relationship of internet addiction with identity in general and national identity in particular.

MATERIALS AND METHODS

In the present cross-sectional research, an analytical-descriptive method was used in order to determine the mean scores of national and personal identities and their subscales in student internet addicts and normal users, and also to determine the relationship between internet addiction and personal and national identity among the same subjects in 2010.

The sample group of the present research was selected from among homepage users of different universities in the city of Isfahan (Isfahan University, Industrial University, University of Medical Sciences, and Islamic Azad University). First, the total number of each university was determined separately (through getting in touch with each university's public relations or referring to the universities' websites). Then, based on the calculated sample size (386 individuals) and proportional to each university, samples were selected as quota (according to the calculated proportion). Thereafter, the calculated samples for each university were randomly selected from among the users from homepages of each university. University homepages were chosen for sample selection, as the users of these sites encompass a variety of students belonging to different fields, sexes, marital status, and level of education; and hence, a more randomized selection could be carried out.

The following tools were used in the present research:
1. Demographic information questionnaire, which examines features such as age, sex, education, marital status, hours of internet use per day, time of use and the reason for use in each day.

2. Compulsive internet use scale (CIUS): This questionnaire includes 14 items and was developed by Meerkerk *et al.* (2007). Its subscales (which have been developed based on DSM-IV criteria for substance dependence) are scored based on a Likert scale; and assess factors such as tolerance to internet use, interest and eagerness towards the internet, abstinence symptoms and negative effects of internet use. In a study carried out in order to evaluate the psychometric features of this questionnaire, Meerkerk *et al.* reported a high internal reliability and a suitable concurrent validity.[9] The reliability of the Iranian version of this questionnaire through alpha Cronbach's method is reported to be 0.89.[10]

3. Young's internet addiction test (IAT): This questionnaire is consisted of 20 items and is scored using a Likert scale. Its items are designed based on DSM-IV-TR diagnostic criteria for impulse control disorders. In the study carried out by Young *et al.*, the internal reliability of the questionnaire was 0.92, and its validity which was assessed through retest, was reported to be significant.[11] In a study under the title of the psychometric properties of the Internet Addiction Test, Widyanto, and McMurran reported a very high face validity for this questionnaire. Also, in their study, factor analysis revealed six factors: salience, excessive use, neglecting work, anticipation, lack of control, and neglecting social life, all of which indicate internal consistency as well as validity.[12] In addition, Alavi reported the reliability of 0.88 for the Farsi version using Cronbach's alpha, as well as an appropriate validity. Also, in another study the concurrent validity of the questionnaire was reported appropriate.[13]

4. National Identity Questionnaire (Iranian): This questionnaire was developed by Dr. Sirous Ahmadi in 2007 and is comprised of 27 questions and 5 subscales, namely, membership in a national group (7 questions), homeland defence (4 questions), national heritage (5 questions), general features of national group (5 questions), and others' viewpoints on the national group (6 questions). All questions of national identity questionnaire have been developed based on a 5 item Likert scale. The validity of this questionnaire has been reported to be appropriate, and its reliability according to Cronbach's alpha coefficient has been reported to be equal to 0.92.[14] In the present study, the reliability of this questionnaire was 0.89 and 0.76 according to Cronbach's alpha coefficient and split-half method, respectively.

5. Extended objective measure of ego identity status (EOM-EIS): This questionnaire was developed by Bennion and Adams in 1986, and evaluates the four identity domains of diffusion (chaotic), foreclosure (premature), moratorium (delayed), and achievement (successful or development) based on Marcia's theory. This questionnaire is consisted of 64 items, is scored based on a Likert scale, and is measured separately for each subscale. Aghasoltani (2000) reported Cronbach's alpha reliability coefficients of 0.72, 0.86, 0.67, and 0.76 for diffusion, foreclosure, moratorium and achievement identities respectively.[15]

Gharaie *et al.* (2006) reported a reliability in the range of 0.71 to 0.91 using Cronbach's alpha methodology for this questionnaire, and a reliability of 0.95 using test-retest method.[16] In the present study, the Cronbach's alpha for the items of the questionnaire were: 0.78, 0.77, 0.65, and 0.80 for diffusion, foreclosure, moratorium and achievement identities, respectively; which are indicative of a particularly appropriate reliability for this questionnaire.

CIUS, IAT, national identity questionnaire, personal identity questionnaire, as well as a questionnaire of demographic information were then completed by all subjects. Subsequent to the collection and scoring of the questionnaires, the subscales of both national and personal identity questionnaires were analyzed in both the internet addict and nonaddict groups using *T*-test, Pearson's correlation coefficient, and linear regression via SPSS software.

RESULTS

Three hundred and eighty six students participated in this study and were divided into two groups, namely, addicted internet users and normal internet users, subsequent to the execution and analysis of Young's Internet Addiction Test (IAT) and Compulsive Internet Use Scale (CIUS), and according to the participants' sex [Table 1].

According to the results, the mean and standard deviation of the age of the present sample were 21.53 and 1.8 respectively; also, the mean and standard deviation of number of hours of computer and internet use in each work shift were 1.98 and 2.18 respectively. In addition, according to diagnostic questionnaire for internet addiction (YDQ) and CIUS, 322 individuals (80.5%) were normal, and 78 individuals (19.5%) were diagnosed as addicted to internet.

Determination of mean of personal and national identity and their subscales in the sample group

In order to compare the national and personal identity and their subscales, and to compare them in the two groups, subsequent to the administration of the questionnaires to the target population, the mean, standard deviation and *T*-test have been presented in Tables 2-4:

The comparison of scores of national and personal identities and their subscales in the internet addict group and normal internet users, shows significant difference ($P < 0.05$, $t = 2.5$) in all subscales except for the third variable (national heritage) and the fifth variable (homeland defence).

The comparison of individual identity scores and its subscales in the internet addict group and normal users showed significant difference ($P < 0.05$, $t = 3.2$) in all subscales.

Pearson's correlation coefficient was used in order to assess the relationship of national and personal identity and

Table 1: Frequency distribution (percentage) of studied subjects according to features of demographic questionnaire

Variable	Percentage
Sex	
Male	66.1
Female	33.9
Age	
18-22 years	75.4
23-27 years	23.7
28-31 years	0.8
Marital status	
Married	92.4
Single	7.6
Education	
College	0.8
Bachelor's	78.8
Master's	6.8
PhD and higher	13.6
Duration of computer and internet use	
Less than 1 year	11.9
1 to 2 years	13.6
More than 2 years	74.6
Frequency of computer and internet use	
Every day	16.9
Every other day	22.9
2 days per week and more	60.2
Location of most internet use	
Home	16.9
Internet cafe	4.2
University site	78.9

Table 3: Mean and standard deviation of scores of personal and national identity questionnaires in addition to their subscales in the normal user group

National and personal identity and their subscores	Mean	Standard deviation
National identity	109	20.9
Membership in national group	36.8	7.4
General characteristics of the national group	26.4	8.3
National heritage	17.2	3.03
Others' viewpoint regarding the national group	13.4	3.2
Homeland defence	13.1	2.5
Personal identity	185.37	17.72
Identity diffusion	42.8	7.4
Identity foreclosure	41.9	8.1
Identity moratorium	47.5	6.1
Identity achievement	53.1	6.9

Table 2: Mean and standard deviation of scores of personal and national identity questionnaires in addition to their subscales in the internet addicted group

National and personal identity and their subscores	Mean	Standard deviation
National identity	104.9	12.9
Membership in national group	35.9	6.1
General characteristics of national group	23.52	4.3
National heritage	16.7	3.7
Others' point of view regarding national group	12.9	3.2
Homeland defence	13.7	2.3
Personal identity	194.7	28.8
Identity diffusion	45.3	9.4
Identity foreclosure	45.1	13.7
Identity moratorium	50.9	8.6
Identity achievement	56.4	8.5

Table 4: Results of Pearson's correlation coefficient between personal and national identity and their subscales, and addiction to internet

National and personal identity and their subscores	Mean	Standard deviation
Internet addiction and national identity	−0.30	$P < 0.0001$
Internet addiction and membership in national group	−0.42	$P < 0.0001$
Internet addiction and general characteristics of the national group	−0.61	$P < 0.0001$
Internet addiction and national heritage	−0.22	$P < 0.0001$
Internet addiction and others' viewpoint regarding the national group	0.09	$P > 0.05$
Internet addiction and homeland defence	0.06	$P > 0.05$
Internet addiction and personal identity	−0.20	$P < 0.0001$
Internet addiction and identity diffusion	0.30	$P < 0.0001$
Internet addiction and identity foreclosure	0.42	$P < 0.0001$
Internet addiction and identity moratorium	0.36	$P < 0.0001$
Internet addiction and identity achievement	0.26	$P > 0.05$

their subscales with addiction to internet. Results showed a significant and inverse association of national identity and its subscales with addiction to internet. However, this significance is not present in the fourth and fifth factors of national identity (others' viewpoint regarding the national group and homeland defence). In addition, there is a positive and significant relationship in subscales of individual identity ($P < 0.05$).

In order to analyze the relationship between internet addiction and national and personal identity and their subscales, MANCOVA (multivariate analysis of covariance) was used along with the supporting variables of marital status, age, education, and hours of internet use. Subsequent to the

omission of noneffective variables in the final model, and with the use of the aforementioned model, it was concluded that internet addiction in general and with controlling the sex variable, affects national and personal identity (Wilk's Lambda value = 0.72) ($F(8,107) = 5.03$, $P < 0.001$).

In addition, intergroup study shows that national and personal identity, with controlling for the sex factor, is affected by addiction to internet.

The strength of the effect of national identity and its subscales along with age, sex, education, and hours of internet use as moderating alternatives of internet addiction were analyzed using multiple logistic regression. Subsequent to omitting noneffective alternatives, and considering goodness of fit, only the alternatives of sex and marital status remained in the model. In other words, individuals with low personal and national identity are 1.1 times more vulnerable to internet addiction in comparison with individuals with high personal and national identity; and single individuals are about 3.5 times more vulnerable to internet addiction. For each one unit, decrease in national and personal identity, there is a rise of around 2.3 in vulnerability to internet addiction.

DISCUSSION

The present research was carried out with the aim of comparing national and personal identity in individuals with and without internet addiction, and the relationship of internet addiction with national and personal identity. The presentation of general conclusions regarding the results, and comparing the findings with findings of other studies, in addition to offering suggestions to overcome limitations, as well as the provision of new solutions, are one of the most important parts of a study. Therefore, the results will be analyzed based on the questions inherent in the study. The authors thereafter attempt to determine the correspondence of the findings of the present study with that of other studies in terms of results and theoretical bases. This is followed by suggestions for future research.

Based on the first to tenth aims of the study, the mean of national and personal identity scores and their subscales in both the internet addict group and normal users were determined and compared to each other. According to the findings, there is a significant difference ($P < 0.05$) in the national identity questionnaire, between the scores of national identity and its subscales in both groups, except for the third factor (national heritage) and the fifth factor (defence of homeland). This indicates that national and personal identity are in a more favorable situation among normal internet users, in comparison with the addict group. By comparing the two groups, it could be concluded that as addiction to internet grows to more severe degrees, the denial of national and personal identity is more frequently observed. Also, according to Funk and Buchman, becoming exposed to media such as internet and satellite television channels, could influence the thought and behavior of individuals, and

their continuous use could have long term negative effects and lead to a decrease in empathy and a lack of national and religious belongings.[17]

In addition, according to Gruenhage, Vingatesh, and Vitalarie, an excessive use of internet leads to extreme loneliness and seclusion, which in turn leads to a reduction in the individual's social interaction, disordered identity, and ultimately, a decrease in social skills.[18]

The entertainment center of Art and Culture Organization under Tehran Municipality, in collaboration with the Center of Behavioral Pathology under the Welfare Organization have published the results of their studies on the effect of computer games, internet and cyberspace on 1300 internet users who had been continually using the municipality's website. Their results show a worsening of visual problems, development of physical weakness in the head, neck and back, development of introversion and seclusion, development of social aversion and aggressive attitudes, missing out on the healthy atmosphere of normal social environments, feelings of national and religious alienation, and harming the family economy.[1] According to a study by Maleki and Abbaspour the mean of national identity of individuals who do not use foreign media (internet and satellite channels) is significantly higher than that of individuals who use these media.[19] Also in another study, results indicated a significant difference between the scores of questionnaires on national identity, religious identity and mental health among the three groups of internet and cyberspace users; and that the situation of national and religious identity as well as mental health is to a great extent and significantly different between computer users and other groups. In other words, the higher the experience with the internet and cyberspace, the more likely the possibility of changes in identity which lead to a deterioration of mental health. However, the mentioned findings have not been reported to be significant regarding the comparison of personal identity.[20] Hwang has stated in his study that the internet addict and nonaddict groups have significant differences regarding their identity scores.[4]

Nevertheless, the findings of the present study showed no significant difference in the third factor (national heritage) and fifth factor (defence of homeland) in the national identity questionnaire between the two groups. This could be due to the influence of factors other than cyberspace, on national heritage and homeland defence among Iranians. All individuals in the society will become mobilized to protect their country in case of serious problems; also, all Iranians cherish and admire their national heritage including poets, kings and Nowruz, and factors such as the internet and cyberspace are not effective in this regard.

According to the eleventh and twelfth goals of the study, the findings indicated a reverse and significant relationship of national and personal identity scores and their subscales, with addiction to internet ($P < 0.01$). Except for the factor of others' viewpoints on the national group and homeland

defence, other subscales of personal identity have positive and significant relationship. The relationship between internet addiction and factors such as social seclusion, education failure and lack of efficacy, lack of social support, identity disorder, anxiety, and self-confidence and self-reliance was shown to be significant in one study. In other words, with the rise in the severity of internet addiction, there is a corresponding rise in social seclusion, educational and occupational failure, lack of social support, identity disorders, anxiety and lack of self confidence and self reliance.[4] In a study carried out on 15--18-year old students in seven schools, Stephenson *et al.* (2007) stated that internet use is related to different types of identity (national, personal etc). According to the same authors internet might play an important role in youths' identity formation.[3]

In addition, Hafeznia *et al.* (2006) have mentioned in their study that the spread of globalization processes in the form of information and communication technology (satellite and internet), is related to national identity. In other words, along with the rise in use of information technology, there has been a corresponding decrease in national longings. Also, by reinforcing transnational and infranational forces, globalization has led to a deterioration of national longings among students.[7] Furthermore, in another study, the relationship between information technology and the acquisition of personal identity especially in the youth is considered to be of major importance.[4,21]

It should be noted that a lack of relationship of others' viewpoint on national group and homeland defence was due to the interference of other unpredicted and uncontrolled factors, which might have not been assessed, and hence the relationship was not reported significant.

However, the precise cause of the relation between national and personal identity, and internet addiction is yet to be determined. It is possible that the lack of national longing *per se*, makes an individual vulnerable to excessive use of internet and ultimately internet addiction. Alternatively, the lack of longing for national identity could be the effect of internet addiction; meaning that individuals who become addicted to the internet, undergo negative effects which lead to alterations in their national and personal identity. This subject needs further investigation. But at any rate, the identity (personal, national, etc.) of internet addicts in general is more vulnerable than that of normal users.

Further investigation is needed in order to assess the direct relationship of identity and internet dependence, and to accurately ascertain whether internet addiction leads to a lack of longing for national identity. All in all, it could be concluded that a greater inclination toward the internet and cyberspace is associated with higher changes in aspects of identity among individuals. But are virtual spaces the only entities capable of separating the individual from the society and driving him/her towards individualism, seclusion, change in identity and a disordered mental health? Nevertheless it is too soon to predict; and one should wait to see the various effects of this virtual world on the mind and psyche of people in future generations. Also, one should consider the fact that several factors affect types of identity in the individual, and media such as the internet and the addiction to it cannot exert a complete effect on identity by themselves, and entities such as cultural and economic factors are also effective. However, study findings show that excessive use of internet and virtual spaces and addiction to them could be related to defects in some aspects of national and personal identity.

Finally, it should be noted that internet addiction has been recently considered as a social problem, and the number of clients who present for this problem to psychiatric clinics is gradually increasing. Therefore, all aspects of this issue and its positive and negative consequences should be thoroughly assessed. The findings of the studies should be thereafter presented to the country's executive and cultural authorities in order to provide them with real insight regarding the issue, and hence to generate the ability to devise proper policies based on scientific premises. Also, since adolescence and youth are considered to be the period of identity formation for the adolescent,[22] parents need to discuss with their children the possible disadvantages of the internet. Acquainting the children with physical, behavioral and moral hazards as well as the inappropriate, unnecessary and excessive use of modern technological innovations such as satellite channels, the internet and mobile phones, and reinforcing basic moral and religious values in children as well as constructing self-control and self-immunization against them in order to reach an optimum usage of modern technology is of utmost importance. Mentioning problems and issues associated with the internet, points to the need for proper education and appropriate culture development among families and in the society for a better and more suitable usage of the internet.

REFERENCES

1. Arashloo H. Assessment of the effect of electronic media and virtual spaces such as the internet on identity and mental health of students in Tehran University. [dissertation]. Islamic Azad University of Roodehen branch. Faculty of Psychology and Educational Science.2006.
2. Glin L. Media and Identity. Psychological Bulletin 1997;108:499-503.
3. Stefanescu, C, Chele, G, Chirita R, Chirita, V, Ilinca M. The relationship between development identity and internet addiction. European Psychiatry, 2007;22:S200 Abstract book, 15th AEP Congress
4. Huang YR. Identity and intimacy crises and their relationship to internet dependence among college students. Cyberpsychol Behav 2006;9:571-6.
5. Colwell J, Payne J. Negative correlates of computer game play in adolescents. British Journal of Psychology, 2000;91:295-310.
6. Morrison, Margaret, Krugman. A look at mass and computer mediated thechnologies. Undrestanding the roles of television and computer in the home. Journal Of Broadcasting and Electronic Media 2001;45(1):135-161.
7. Hafeznia MR, Kaviani- Rad Morad, Karimipour Yadollah, Taherkhani Mehdi. Effects of globalization on national identity (a case study: students of Tehran universities). Geopolitical Quarterly Journal 2006;3-4:1-21.
8. MZokaie MS, Khatibi F. Internet and identity changes: A study on

young professional users. Journal of Cultural and Communication Studies, 2006;7:165-203.

9. Meerkerk GJ. Explorative research into the causes and consequences of compulsive internet use. Rotterdam, The Netherlands: Erasmus University of Rotterdom; 2007.

10. Alavi SS, Jannatifard F, Eslami M, Rezapour H. Validity, reliability and factor analysis of compulsive internet use scale in students internet users of Isfahan's Universities. Journal of Health Information Management, 2011; Vol 7, Special Issue4: 715-4.

11. Man Sally L. Prediction of Internet Addiction For Undergraduates In Hong Kong,Honk Kong Baptist University. 2006.

12. Widyanto L, McMurran M. The psychometric properties of the internet addiction test. Cyberpsychology Behav 2004;7:443-50.

13. Alavi SS, Jannatifard F, Eslami M, Najafi M, Marasi MR, Rezapour H. The Psychometric Properties of Young Internet Addiction Test (IAT) in Students Internet user . Bahavioral Sciences Research 2010;4:185-9.

14. Ahmadi, S. Assessment of the results of Iranian National Football Team in the 2006 Football World Cup on national identity of citizens. Olympics Quarterly 2007;1:85-95.

15. Aghasoltani, S. Assessment of relationship between identity and creativity among freshman of Tabriz University. [dissertation]. Isfahan University, faculty of Psychology and Educational Sciences, 2000.

16. Gharaie B, Atef- Vahid MK, Dezhkam M, Mohammadian, M. Iranian Journal of Psychiatry and Clinical Psychology (Mind and Behavior) 2006;11:164-75.

17. Moeedfar S, Habbibpoor Getabi K, Ganjee A. A Study of Internet Addictive Behavior among Teenagers and the Youth (15 to 25 years old) in Tehran, Global Media Journal(GMJ) of Tehran University 2007;4. Available at http://jap.ut.ac.ir/page/article-frame.html? articleId = 1004909, [Last accessed on 2011 Jan 15].

18. Sharafi MR. The youth and the fourth power of life: Self-constructive will to identity. Tehran: Soroush Publications; 2010.

19. Maleki A, Abaspour A. Social evaluation of young individuals' viewpoint on national identity and its factors. Quarterly of Police Science 2010;10:159-76.

20. Alavi SS, Hashemian K., Janati Fard F. Comparison of identity and mental health in users of internet and cyberspace among students of Tehran University. Behavioral Science Studies. 2008;6:27-35.

21. Mansour M. Genetic psychology: Psychological development from birth to old age. Tehran: Organization for Study and Provision of University Books in Humanities (SAMT); 2010.

22. Rosell MC, Sanchez-Carbonell X, Jordana CG, Fargues MB. The adolescent faced with technologies of information and communication: Internet, mobile phone and videogame. Papeles Del Psicologo 2007;28:196-204.