International Journal of Social Sciences (IJSS)
Vol.4, No.3, 2014

Determination of Problematic Internet Use: Identity Styles and Social Skills

Nikou Tabaraei[1]
Department of Psychology, Islamic Azad University, UAE Branch
Mansooreh Nikoogoftar
Department of Psychology, Payam-e Nour University
Sepideh Minoosepehr
Department of Psychology, Islamic Azad University, UAE Branch

Received 25 June 2014
Revised 18 August 2014
Accepted 19 September 2014

Abstract: *The use of social network sites (SNSs) has been booming in the world and it represents the new way of social interactions. The reports of problematic forms of Internet usage brought attention to this issue. Current study examines the correlation between subscales of identity styles and social skills with problematic internet use among Facebook users. Furthermore, this study aimed to find the predictors of PIU. Data were collected from 132 students of Islamic Azad University, UAE branch, aged 18-40 years old (M= 24.64, SD = 4.909) who were active in Facebook. The result has indicated that there was a significant negative correlation between the total score of problematic internet use with emotional sensitivity, social sensitivity, informational identity, normative identity and commitment. On the other hand, it had a significant positive correlation with social expressivity and diffusion/avoidant identity. Furthermore, Commitment, social expressivity (SE), emotion sensitivity (ES), social sensitivity (SS) as predictor variables accounted for 28% of variance of problematic internet use. These findings show the impact of different dimensions of identity and social skills in problematic internet use.*

Keywords: *Commitment, Identity styles, Problematic internet use, Social network sites, Social skills*.

Introduction

With the advent of the internet as an essential media channel for communications, information exchange, academic research, and entertainment purposes, the internet usage has become a must in everyday life. Studies on internet usage show that there was a dramatic growth of internet users in the world from 2000 to 2012, approximately 566%. Currently, the number of the people who use the internet is over 2.5 billion in the world (Chen and Wang, 2013).In Iran studies depicted that 78% of Iranian internet users are members of one of the social networking sites (SNSs) (Ziaeeparvar & Aqili,2010).

One type of online application that has grown rapidly in prevalence and popularity in recent years is social networking on the Internet, especially among young adults. Among all these social networking sites, Facebook is the most popular social network with over 500 million users, with more than 1.6 billion page views each day (Yu, 2011). According to Alexa Web Search-Top 100 (2011) Face book is the second most visited website in the world after Google and has an estimated 800 million active users. Due to popularity of SNSs such as Facebook, they have been the subject of many studies regarding their usage and the consequences.

Numerous studies in recent years have illustrated that excessive use of internet can be an impediment to some areas of daily life such as academic performance, family relationships, health habits, etc.(Davis, 2001; Shapira, Goldsmith, Keck Jr. Khosla and McElroy, 2000; Young and Rogers, 1998). The excessive and problematic use of internet is variously termed as pathological internet usage (Davis, 2001; Morahan-Martin and Schumacher, 2000), Internet dependence (Scherer, 1997), internet exploitation (Young and Rogers, 1998), problematic Internet use (Shapira, et al. 2000), and internet addiction (Brenner, 1997; Griffiths, 2000). Although these terms are often used interchangeably, in the present study, following the terminology of Kaplan (2003, 2010) and other authors, the term problematic internet use (PIU) is applied.

[1] Email: nikooo_t@yahoo.com (Corresponding Author)

The problem urges when individuals spend a great deal of time on online world like Facebook. Nevertheless, sometimes spending an excessive amount of time online is not necessarily indicative of a problem; many functional Internet behaviors require long hours spending online. The internet usage can be considered problematic when it interferes with most vital aspects of life such as working, schooling, and maintaining relationships with family and "real" friends (Kaplan, 2005). A meta-synthesis of 10 studies on Internet addiction for the period of 1996–2006 showed that over-engagement with the Internet are multiple and include developing problems in any of the five areas: scholastic, occupational, interpersonal, financial, or physical (Douglas et al. 2008). In other words, PIU could be considered as being unable to control the use of the Internet, which eventually results in psychological, social, academic, and/or professional Problems in a person's life (Young, 1999) and social skills deficit (Kaplan, 2005; Douglas et al., 2008; Engelberg & Sjöberg, 2004). In identifying the etiology of PIU, Davis (2001) took a cognitive-behavioral approach. This model assumes when problematic cognitions alongside with behaviors that either intensifies or maintains the maladaptive response can lead to PIU. The PIU theory is taken from other theories in which it highlights the individual's cognitions (or thoughts) as the main source of abnormal behavior.

Davis (2001) defines two distinct types of PIU: specific and generalized .Specific pathological Internet use includes those people who are dependent on certain aspects of the Internet. Generalized pathological Internet use involves a general, multidimensional excessive use of the Internet like wasting too long hours online without having a clear objective. Generalized PIU can be often associated with constant chatting online and e-mailing. It is stated that people who use the Internet for interpersonal activities (e.g., chatrooms, interactive gaming, and instant messaging) and go online to meet people, make friends, and seek emotional support are reported negative outcome (Morahan-Martin, 2007). Besides, Kaplan (2005) implies that individuals who lack self-presentational skill are especially more likely to prefer online social interaction over face to face communication. Researches also indicated that frequent users, to some extent, lack the social skills characteristic (Engelberg & Sjöberg, 2004). Social skills reflect "the ability to interact with other people in a way that is both appropriate and effective" (Segrin & Givertz, 2003, p. 136). Furthermore, Greshman, Van, and Cook (2006) argued that social skills are fundamental factors for the formation of relationships, for the quality of social interactions and even for the individual's mental health. Research showed that the adolescents, who already have strong social skills, may consider the Internet just as another way to get in touch with peers (Kraut, Kiesler, Boneva, Cummings, Helgeson and Crawford, 2002). It means that the people with better social skills could use the Internet in much proper way to extend their relationships beyond their local networks (Zorofi, 2011). In contrast, in another research, adolescents who used chat rooms exhibited lower peer status and had fewer social skills than those who did not (Whitlock, Powers and Eckenrode, 2006). Moreover, Krooki, Yazdkhasti, Ebrahimi and Oreizi (2012) showed that by improving social skills, PIU can be reduced.

According to Kaplan (2003) "preference for online social interaction is a cognitive individual-difference construct characterized by beliefs that one is safer, more efficacious, more confident, and more comfortable with online interpersonal interactions and relationships than with traditional face to face social activities" (p. 629). According to Erickson (1959) individuals' interactions with peer groups could be considered as the basic mechanism by which they create a healthy sense of self. Rosenberg (1986) added that the person's thoughts and feelings towards himself as an object and identity is a crucial part of the self-concept.

Altheide, (2000), believes that the identity is a part of the self through which we are known to others. In general, the relationship between the Internet use and identity styles has been under investigation for more than a decade. People act differently in SNSs like Facebook than they do in other online settings. Therefore, identity development process has become an inevitable source of the Internet use (Mullis, Mullis and Cornille, 2007). Stone (1981) discussed that the formation of an identity is a public process that involves the identity announcement and the identity placement. Identity announcement is what that is claimed by the individuals, while identity placement is approval of others for the claimed identity, and identity is formed by the coincidence of placements and announcements. The constructions of identities on SNSs are quite different from the real world. Although Facebook is one of the SNSs, its settings make it different from the other SNSs environments which can enable the users to present themselves in number of various ways. Since people are known to their friends, they can share personal information, pictures, interests and hobbies in their profiles online. Also they can make a list of their friends and social networks, which they choose to interact with. On the other hand Facebook's settings provide the users to choose who could see their information and also which information could be displayed (Zhao, Grasmuck and Martin, 2008).

Identity style is a theoretical construct used to refer to the manner in which individuals construct and manipulate their identities. Berzonsky (1990) defined the identity styles as social –cognitive style in general and as a mean to analyze identity-relevant information, making personal decisions, and tackling identity-relevant problems in

particular. Marcia (1966) identified two dimensions in the process of identity formation: exploration, where a person actively considers alternative elements of possible identities; and commitment, in which they decide to follow a specific set of identity beliefs, values and goals. The 4 identity statuses postulated by Marcia (achievement, moratorium, foreclosure and diffusion) represent varying degrees of exploration and commitment. These styles are thought to be important determinants of an individual's identity. In this regard, Berzonsky (1990) took three different identity styles in consideration namely, normative style, information-oriented style, diffuse/avoidant style and the dimension of commitment.

Since the SNSs enables individuals to conceal their identity and present themselves in any identity they wish, individuals can do identity experiments in such environment (Gross, 2004; Kennedy, 2006; Valkenburg & Peter, 2008; Valkenburg, Schouten & Peter, 2005). Greenfield, Gross, Subrahmanyam, Suzuki, and Tynes, (2006) found that the identity of the youth is mostly formed in virtual environments such as chat rooms which they use this opportunity to form a new identity and present it in a way they wish for instead of their real identity (Huang, 2006; Yang and Tung, 2007). By doing this they would encounter with the problematic use of the Internet specifically in social network sites.

Ceyhan (2010) showed that identity statuses of university students are an important factor for their problematic Internet use. Moreover, it was found out that the problematic Internet use has a negative relationship with the "identity achievement status" and a positive relationship with the "identity moratorium status". In a study on identity styles and internet addiction among university students in Iran, the result indicated that internet addiction has a positive and significant relationship with diffuse avoidant identity style and a negative and significant relationship with informational and normative identity styles (Arabzadeh, Bayanati, Nikdel, Nadery and Naimi, 2012). To the best of our knowledge, no study so far has investigated both social skills and identity styles as predictor of problematic internet use. The aim of this study was to find out whether the facets of social skills and identity styles impact the internet usage among students in Azad University, UAE branch, who were Facebook users.

Research Method

Sample

The sampling method was the accessible sampling method. The participants were 132 students of Islamic Azad University, the UAE branch, aged 18-40 years old (M= 24.64, SD = 4.909) who were active in Facebook. 53.3% of the respondents were male and 43.2% were women and 1.5% were unspecified. 78% of the respondents were single and 19.7% were married, 2.3% were missing data. The sample included the students of different majors in both bachelor and master levels that were studying in the second semester of the academic years 2012-2013. The aim of study was explained to each participant and they were assured about the participants' information confidentiality.

Measures

A 79-items questionnaire was used to assess problematic internet use, social skills and identity style. Social Skills Inventory (SSI) and Generalized Problematic Use Scale -2 (Kaplan, 2010) was translated by the support from an English lecturer to Persian and then they was translated back to English independently. The final translation has been discussed with some of the psychology faculty members for the validity. The necessary changes were made to the questionnaire regarding applicable recommended feedbacks. A pilot study was conducted on students of Islamic Azad University who were of similar ability and background to the survey target population to study the reliability of this questionnaire. Cronbach's alpha showed a high internal reliability.

Generalized Problematic Use Scale -2 (GPIUS2)

Kaplan (2010) proposed revised version of the GPIUS as an instrument to measure different components of dysfunctional use of this technological resource. GPIUS2 comprises of 15 items that are grouped in to the following 4 subscales, denominated (1) Preference for online social interaction (POSI) (3 items; e.g., "I prefer online social interaction over face-to-face communication") (2) Mood regulation (MR) (3 items; e.g. "I have used the Internet to talk with others when I was feeling isolated")(3) Deficient self-regulation (DR),which is a second order factor that includes a subscale for cognitive preoccupation (3 items; e.g." When I haven't been online for some time, I become preoccupied with the thought of going online") and a subscale for compulsive internet use (3 items; e.g. I have difficulty controlling the amount of time I spend online") and (4) Negative outcomes(NO)(3 items; e.g. "My internet use has made it difficult for me to manage my life"). The measurements employed a seven-

point Likert scale, from 1 (strongly disagree) to 7 (strongly agree). The internal consistency of the entire scale in Kaplan's study was α = .91. In this study Cronbach's alphas for the four subscales varies from .692 to .841 and total Cronbach's alpha was =.845 (Table 1).

Social Skills Inventory (SSI)

Social Skills Inventory (SSI; Riggio, 1986) uses 90 items to measure six subcomponents of social skills. In this study the shortened version of SSI comprising of 24 items was created by Oldmeadow, Quinn, and Kowert (2012) in Persian was used to measure each of the six subscales, denominated (1) Emotional Expressivity(EE) (4 items; e.g., " Rarely I express my emotions") (2) Emotional Sensitivity(ES) (4 items; e.g., "I can tell about someone personality carefully in the first meeting") (3) Emotional Control(EC) (4 items; e.g., "I can rarely hide my excessive emotions") (4) Social Expressivity(SE)(4 items; e.g., "I love socializing") (5) Social Sensitivity(SS)(4 items; e.g., "I am ultra-sensitive to criticism") and (6) Social Control(SC) (4 items; e.g., "I'm usually selected as a group leader"). Participants rated their agreements with each item on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). Oldmeadow et al. (2012) found that Cronbach's alphas for the subscales were all above 0.8, except emotional expressivity (alpha = 0.53). In current study the Cronbach's alpha for EE, SC, and EC subscales were not significant (α< .5), therefore just ES (α= .766), SS (α= .712), and SE (α= .764) subscales were included (Table 1).

The Identity Style Inventory (ISI-3)

The 40-items questionnaire in Persian was utilized to access the identity style. Berzonsky (1992) presented four facets for identity style: (1) Information-oriented style (11 items; e.g., "I have spent a great deal of time thinking seriously about what I should do with my life") (2)Normative (9 items; e.g., as "I've more or less always operated according to the value which with I was brought up") (3) Diffuse/Avoidant style (10 items; e.g., "I'm not really sure what I'm doing in school I guess things will work themselves out") and (4) Commitment (10 items; e.g., "regarding religious beliefs I know basically what I believe and don't believe"). The measurements employed five-point scale from 1 (strongly disagree) to 5 (strongly agree). Hejazi, & Fartash (2006) examined the validity of Persian version of ISI-3 and reported the Cronbach's alpha from .65 to .68 for the subscales. Cronbach's alpha of this study is reported in Table 1.

Demographic

The demographic part included questions about the age, gender and marital status of the participant.

Table (1): Descriptive characteristic of all subscales

	M	SD	Reliability	Items No.
MR	10.2121	4.44136	.811	3
POSI	9.5664	4.40956	.784	3
NO	6.3871	3.13477	.655	3
DS	17.8561	7.45790	.780	6
GPIUS2	45.4943	13.08281	.845	15
EE	12.6288	2.61062	.291	4
ES	13.8750	2.79482	.766	4
EC	12.8864	3.77142	.350	4
SE	13.6807	3.08065	.764	4
SS	10.6341	3.34436	.712	4
SC	13.1484	3.32277	.172	4
Informational style	35.5360	6.12971	.683	11
Normative style	30.2422	5.70915	.668	9
Diffuse/Avoidant style	28.6504	5.09417	.571	10
Commitment	35.4394	6.37416	.660	10

MR= Mood Regulation, POSI= Preference for Online Social Interaction, NO= Negative Outcomes, DS= Deficient Self-Regulation, GPIUS2 = Generalized Problematic Internet Use Scale 2, EE= Emotional Expressivity, ES= Emotional Sensitivity, EC= Emotional control, SE= Social expressivity, SS= Social sensitivity, SC= Social control,

Results

Correlation matrix for predictor and dependent variables is reported in Table 2. The results show that there is a significant negative correlation between the total score of problematic internet use with emotional sensitivity, social sensitivity, informational identity, normative identity and commitment. Furthermore, it has a significant positive correlation with social expressivity and diffusion/avoidant identity.

Table (2): Correlation matrix of measured constructs

	ES	SE	SS	Informational	Normative	Diffusion	Commitment
MR	.019	.125	-.138	.047	.016	.043	-.049
POSI	-.093	-.080	-.161	-.165	-.198*	-.005	-.258**
NO	-.088	.161	-.160	-.191	-.272**	.202	-.141
DS	-.073	.141	-.233**	-.150	-.155	.223*	-.288**
GPIUS2	-.283**	.234*	-.234*	-.255*	-.248*	.255*	-.292**

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

First related assumptions, normal distribution, linearity, and homoscedasticity were considered for multiple regression analysis. The data were modified and outlier data were excluded. To determine the effect of each variable of social skills and identity styles on PIU, the three subscales of social skills and identity styles as predictor and total score of PIU as dependent variable entered in the regression equation (Table 3). The regression scores of predictors variables (social skills and identity styles) were significant ($p<.05$). The results indicated that predictor variables in all accounted for 28% of variance of dependent variable. According to Table 3, PIU had a significant negative correlation with commitment, emotional and social sensitivity and had a significant positive correlation with social expressivity.

Table (3). Results of regressing Commitment, SE, ES, SS on Generalized Problematic Internet Use

Model		B	Beta	T	Sig.
1	Commitment	-.599	-.292	-2.591	.012
2	Commitment	-.697	-.340	-3.094	.003
	SE	1.232	.290	2.643	.010
3	Commitment	-.544	-.265	-2.368	.021
	SE	1.346	.317	2.947	.004
	ES	-1.164	-.249	-2.223	.029
4	Commitment	-.512	-.249	-2.296	.025
	SE	1.238	.292	2.788	.007
	ES	-1.364	.291	-2.657	.010
	SS	-.979	-.250	-2.404	.019

$R = .531$ $R^2 = .282$ $F(1,69)= 5.781$
Predictors: Commitment, social expressivity (SE), emotion sensitivity (ES), social sensitivity (SS)
Dependent Variable: GPIUS2

Conclusion

The present study aimed at investigating the relationship between problematic internet use among Facebook users and their identity style and social skills. The findings of this study show that PIU has a positive and significant relationship with diffuse-avoidant identity style and social expressivity, whereas it has negative and significant relationship with normative and informational subscales of identity style and it's dimension of commitment. These results are in line with the previous studies in this regard (Arabzadeh et al., 2012; Mazalin and Moore, 2004). Ceyhan (2010) also implied that PIU has a negative correlation with achievement statues which is related to individuals with information style of identity. Furthermore, the regression analysis showed that the dimension of commitment in identity style is one of the strongest predictors of PIU among Facebook users. Commitment refers to the possession of a firm and stable sets of convictions, values, beliefs, and goals. On the other hand it is

associated positively with Informational and Normative identity styles and negatively with diffuse-avoidant style, while individuals with diffuse-avoidant style are reluctant to confront personal problems and actively engage identity conflicts (Berzonsky, 1990), it seems reasonable that they prefer SNSs settings like Facebook in online world to real social interactions which could lead to excessive use of internet. These people show also a low level of commitment (Berzonsky, 1992). As Hejazi, Shahrara, Farsinejad, & Asgary (2009) showed, it appears that Diffuse-avoidant individuals are less likely to commit to social and personal goals.

Moreover, individuals with normative identity style more automatically internalize and conform to the expectations and values held for them by significant others and referent groups. Their primary concern is to protect and conserve their existing identity structure; they have a low tolerance and a high need to maintain their identity structure and as this style of identity has a positive correlation with commitment (Berzonsky, 1990), it sounds rational that this kind of identity has negative effect on PIU among Facebook users, which its settings represent an uncertain environment with variety of identities and values.

Individuals with an informational identity processing style intentionally seek out, process, and evaluate self-relevant information. They are self-reflective, skeptical about self-views, open to new information, and willing to examine and revise aspects of their identity when faced with dissonant feedback (Berzonsky, 1990), as the dimension of commitment has its highest level in information identity style therefore these people control daily situations through a rational and considered mechanism and use internet and social networks discreetly for personal needs. Regarding social skill the findings indicate that emotional and social sensitivity are negatively related and predict PIU while social expressivity facet of social skills is positively associated and predict PIU among facebook users. Kim, LaRose and Peng (2009) indicated that individuals with deficient social skill have more tendencies toward social interaction in SNSs.

Reggio (1986) defined Social Sensitivity (SS) as the ability to interpret verbal communications. Socially sensitive individuals care about the social norms and show conscious behaviors. Due to the fact that socially sensitive people are perceptive to other's feelings and accept people for who they are with their differences, they are good listeners and they tend to be warm and caring in their relationships (Bender, Walia, Kambhampaty, Nygard and Nygard, 2012), which these kinds of the relationships cannot be established in social network's interactions, probably because they don't feel the online interactions as a real way of communication. Emotionally Sensitivity (ES) is defined as the ability of perceiving and interpreting other individuals' nonverbal communications such as eye-contact, facial expression, posture, social distance and use of gestures, according to the demands of different social situations. Emotionally sensitive individuals can precisely interpret the emotional signals of others (Riggio, 1986). As nonverbal communications are not possible in internet environments like chat rooms, individuals with emotional sensitivity choose real social interactions to online communications. Consistent with these findings Kooraki et al. (2012) found that social sensitivity and emotional sensitivity have a negative correlation with PIU. Social expressivity refers to the ability of verbal expressivity and establishing/maintaining social communications. Socially expressive individuals can easily start and manage social and other conversations. They are comfortable and confident in social encounters and this leads to greater participation in social interactions (Riggio, 1986). Therefore, they may be more likely to use SNSs to expand their social interactions and communications with others.

In general, findings of this study suggest that for those who are excessive users of SNSs like Facebook, setting higher level of beliefs and values and the sense of commitment to them can help individuals to reduce the problematic use of internet. Furthermore, they should learn different and more adaptive ways to interact with others and making interpersonal relationships. As a result, real affiliations will be preferred to offline communications.
There are some limitations to this study. First, since the Facebook site has been banned by Iranian government, convenience sampling method was used to find people who were face book users. Secondly, self-report questionnaires were used to access the variables.

References

1. Alexa Web Search-Top 100 (2011). Top sites: United States. <http://www.alexa.com/topsites/countries/US> Retrieved 20.03.12.
2. Altheide, D. L. (2000). Identity and the definition of the situation in a mass-mediated context. *Symbolic Interaction*, 23(1), 1–27.
3. Arabzadeh, M., Bayanati, M., Nikdel, F., Nadery, M. S., & Naimi, G. (2012). The relationship of internet addiction with loneliness and identity styles. *Journal of Science and today's world*, *1*(1), 59-70.

4. Bender, L., Walia, G., Kambhampaty, K., Nygard, K. E., & Nygard, T. E. (2012). Social sensitivity correlations with the effectiveness of team process performance: An empirical study. *International Computing Education Research, 12*, 39-46.
5. Berzonsky, M. D. (1990). Self-construction over the life-span: a process perspective on identity formation. *Advances in Personal Construct Psychology*, 1, 155–186.
6. Berzonsky, M.D. (1992). *ISI3 Identity Style Inventory revised version*. State University of New York: New York.
7. Brenner, V. (1997). Psychology of computer use: XLVII. Parameters of Internet use, abuse and addiction: The first 90 days of the Internet usage survey. Psychol. Rep. 80: 879–882.
8. Ceyhan, E. (2010). Predictiveness of Identity Status, Main Internet Use Purposes and Gender on University Students' the Problematic Internet Use. *Educational Sciences: Theory and Practice*, 10(3), 1343-1355.
9. Chen, C. C., & Wang, C. C. (2013). Internet as Indispensable Everywhere: The Introduction to the Advances in Internet Technologies and Applications Special Issue. *Journal of Computers*, 8(7), 1633-1634.
10. Davis, R. A. (2001). A cognitive-behavioral model of pathological Internet use. *Computers in human behavior*, 17(2), 187-195.
11. Douglas, A. C., Mills, J. E., Niang, M., Stepchenkova, S., Byun, S., Ruffini, C., ... & Blanton, M. (2008). Internet addiction: Meta-synthesis of qualitative research for the decade 1996–2006. *Computers in Human Behavior*, 24(6), 3027-3044.
12. Engelberg, E., & Sjöberg, L. (2004). Emotional intelligence, affect intensity, and social adjustment. *Personality and Individual Differences*, 37(3), 533-542.
13. Erikson, E. (1959). Identity and the life cycle, Psychological Issues 1: 18–164.
14. Greenfield, P. M., Gross, E. F., Subrahmanyam, K., Suzuki, L. K., & Tynes, B. (2006). *Teens on the Internet: Interpersonal connection, identity, and information.* In R. `Kraut, M. Brynin & S. Kiesler (Eds.), Information technology at home (pp. 185−200). Oxford: Oxford University Press.
15. Gresham, F. M., Van, M. B., & Cook, C. R. (2006). Social skills training for teaching replacement behaviors: Remediating acquisition deficits in at-risk students. *Behavioral Disorders*, 31(4), 363-377.
16. Griffiths, M. D. (2000). Does Internet and computer "addiction" exist? Some case study evidence. *Cyber psychology & Behavior*. 3(2): 211–218.
17. Gross, E. F. (2004) Adolescent internet use: What we expect, what teens report. *Journal of Applied Developmental Psychology*, 25 (6), 633-649.
18. Hejazi, E., Shahraray, M., Farsinejad, M. & Asgary, A. (2009). Identity styles and academic achievement: Mediating role of academic self-efficacy. *Social Psychology of Education,12*(1), 123-135.
19. Huang, Y. R. (2006). Identity and intimacy crisis and their relationship to internet dependence among college students. *Cyber psychology & Behavior*, 9 (5), 571-576.
20. Kaplan, S. E. (2003). Preference for Online Social Interaction A Theory of Problematic Internet Use and Psychosocial Well-Being. *Communication Research*, 30(6), 625-648.
21. Kaplan, S. E. (2005). A social skill account of problematic Internet use. *Journal of communication*, 55(4), 721-736.
22. Kaplan, S. E. (2010). Theory and measurement of generalized problematic Internet use: A two-step approach. *Computers in Human Behavior*, 26(5), 1089-1097.
23. Kennedy, H. (2006). Beyond anonymity, or future directions for internet identity research. *New Media & Society*, 8 (6), 859-876.
24. Kim, J., LaRose, R., & Peng, W. (2009). Loneliness as the cause and the effect of problematic Internet use: The relationship between Internet use and psychological well-being. *CyberPsychology & Behavior*, 12(4), 451-455.
25. Kooraki, M., Yazdkhasti, F., Ebrahimi, A., & Oreizi, H.(2012). Effectiveness of Psychodrama in Improving Social Skills and Reducing Internet Addiction in Female Students. *Iranian Journal of Psychiatry and Clinical Psychology*, 17 (4), 279-288.
26. Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet paradox revisited. *Journal of social issues*, *58*(1), 49-74.
27. Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology*, 3, 551–558.
28. Marcia, J. E. (1989). Identity and intervention. *Journal of adolescence*, *12*(4), 401-410.
29. Mazalin, D., & Moore, S. (2004). Internet use, identity development and social anxiety among young adults. *Behaviour Change*, 21(02), 90-102.

30. Morahan-Martin, J. (2007). *Internet use and abuse and psychological problems*. In J. Joinson, K. McKenna, T. Postmes, & U. Reips (Eds.), Oxford handbook of internet psychology (pp. 331–345). Oxford, UK: Oxford University Press.
31. Morahan-Martin, J., & Schumacher, P. (2000). Incidence and correlates of pathological Internet use among college students. *Computers in Human Behavior*, 16(1), 13-29.
32. Mullis, R. L., Mullis, A. K., Cornille, T. A. (2007). Relationships between identity formation and computer use among black and white emerging adult females. *Computers in Human Behavior*, 23, 415–423.
33. Oldmeadow, J. A., Quinn, S., & Kowert, R. (2012). Attachment style, social skills, and Facebook use amongst adults. *Computers in Human Behavior*, 29(3), 1142–1149.
34. Riggio, R. E. (1986). Assessment of basic social skills. *Journal of Personality and Social Psychology*, 51, 649–660.
35. Rosenberg, M. (1986). Self-concept from middle childhood through adolescence. *Psychological perspectives on the self, 3*(1), 107-136.
36. Scherer, K. (1997, August). College life online: Healthy and unhealthy Internet use. Paper presented at the 104th Annual Meeting of the American Psychological Association, Chicago.
37. Segrin, C., & Givertz, M. (2003). *Methods of social skills training and development*. In J. O. Greene & B. R. Burleson (Eds.), Handbook of communication and social interaction skills (pp. 135–176). Mahwah, NJ: Erlbaum.
38. Shapira, N. A., Goldsmith, T. D., Keck Jr, P. E., Khosla, U. M., & McElroy, S. L. (2000). Psychiatric features of individuals with problematic internet use. *Journal of affective disorders*, 57(1), 267-272.
39. Stone, G. (1981). *Appearance and the self: A slightly revised version*. In G. Stone & H. A. Farberman (Eds.), Social psychology through symbolic interaction (2nd ed., pp. 187–202). New York: Wiley.
40. Valkenburg, P. M., & Peter, J. (2008). Adolescents' identity experiments on the internet. Consequences for social competence and self-concept unity. *Communication Research*, 35 (2), 208-231.
41. Valkenburg, P. M., Schouten A. P., & Peter, J. (2005). Adolescents' identity experiments on the internet. *New Media & Society*, 7 (3), 383-402.
42. Whitlock, J. L., Powers, J. L., & Eckenrode, J. (2006). The virtual cutting edge: the internet and adolescent self-injury. *Developmental psychology*, *42*(3), 407.
43. Yang, S. C., & Tung, C. J. (2007). Comparison of internet addicts and non-addicts in Taiwanese high school. *Computers in Human Behavior*, 23 (1), 79-96.
44. Young, J. (1999). The exclusive society. London: Sage Publications.
45. Young, K. S., & Rogers, R. C. (1998). The relationship between depression and Internet addiction. *Cyber Psychology & Behavior*, 1(1), 25-28.
46. Yu, L. W. (2011). An Investigation into the Problematic Use of Facebook (Doctoral dissertation, Hong Kong Baptist University Hong Kong).
47. Zhao, S., Grasmuck, S., & Martin, J. (2008). Identity construction on Facebook: Digital empowerment in anchored relationships. *Computers in human behavior*, *24*(5), 1816-1836.
48. Ziaeeparvar, H., & Aqili, S.V. (2010). Investigation on influence of social networks sites among Iranian users. *Rasaneh*, 20(4), 23-42.
49. Zorofi, M. (2011). The impact of media usage on students' social skills, gargari, amineh sahranavard; geshlagi, mostafa; tahvildar, zohreh. Res. J. Appl. Sci. Eng. Technol, 3(8), 731-736.