

Comparison of Personality Traits and Psychological Well-Being among Urban and Rural Internet and Non-Internet User in High School Students

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Received: July 3, 2014
Accepted: September 20, 2014

ABSTRACT

The aim of present study was to compare personality traits and psychological wellbeing of Internet users and none Internet users high school students in rural and urban zones. The statistical community of the research contained all high school students of rural and urban zones of Shahrekord in academic year of 1392-1393. In this ex post facto research, 100 urban high school students (internet users = 50 and none internet users = 50) and 100 rural high school students (internet users =50 and none internet users = 50) were selected via available sampling. Data collected by demographic questionnaire, personality inventory (NEO) and Ryff psychological well-being scale. Then, collected data analyzed using descriptive statistics (mean and standard deviation) and inferential statistics (T - test). The results revealed that there was a significant difference between internet and none intent users (in rural and urban zones) in extroversion and Openness ($p<0/001$). Also, results showed that there was not a significant difference between both groups of Internet and none Internet users in psychological well-being ($p>0/05$).

KEYWORDS: personality traits, psychological well-being, Internet users, none, Internet users.

INTRODUCTION

Access to the Internet is a growing phenomenon and the number of its users is increasing day by day. According to an estimation conducted in 1981, 66 million of US people had access to the Internet, and this number promoted to 83 million in 1999 (Bigs, 2000). Adolescent have the highest portion of using the Internet among users. Results of research in US show that using the Internet in adolescents group is more than any other age group (Bollen & Harre, 2000). Children are another age group who use Internet broadly; in 2005, more than 77 millions of children entered cyber space (Ghomami, 2004). Along with the increasing and widespread Internet access in rural and urban areas, we observe an indiscriminate use of this technology among high school students, creating various problems in their social relations. Although relations between people (especially teenagers) increase in the virtual world, their relationships in the real world decrease (Samson & Keen, 2005). Psychologists believe that each behavior an individual shows, is influenced by many factors, including environmental, emotional, and personality ones (Barani, Obertes, Karyonel, & Chamorro, 2009). The term "personality factors" are in fact the personality traits that may predispose a person to develop a set of behaviors, while it is probable that the person with different personal traits does not make such behaviors.

Hence, personality factors is one of the most important factors that help us in understanding the complexities of human behavior in different situations and therefore, they should not be ignored (Lotf Abadi, 2006). In this study, to investigate personality traits, the theory of the Big Five Personality Traits of Costa and McCrae (1992) was used. In the five-factor model of personality, personality traits are divided into five categories: Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. Neuroticism includes having negative emotions such as fear, guilt, depression and anger. Extrovert people are social, others loving, active and talkative. People, who are open to experiences, attend to inner experiences and enjoy new ideas and unconventional values. Compatibility, altruism, empathy with others and desire to help them are some of their features. Finally, those who get high scores in conscientiousness have the ability to control impulses, implement plans in behavior, and organize and meet their duties (Costa & McCrae, 2005). Research has shown that those who use the Internet a lot are more extroverts and have more emotional behaviors in comparison to those who do not use it (Shayeq, Azadi & Bahrami, 2008). Moreover, high newness seeking has been shown to be the most significant predictor for excessive use of the Internet (Dargahi & Razavi, 2008).

In this regard, Bary and Landers (2006) reported that pleasant, conscientious and extrovert individuals had less tendency to use the Internet. Nalwa and Ananed (2003) in their reteach investigated two groups of extreme and ordinary users of the Internet. The results demonstrated significant differences in behavioral,

psychological well-being, and performance traits between the two groups; also, feelings of worthlessness, depression, and personality problems were significantly higher in the group of excessive Internet users. Sandres and Chester (2008) suggests that the low utilization of the Internet is negatively related to three traits of the Big Five personality traits (agreeableness, openness and extraversion) as well as two limited traits (optimistic and energetic).

As discussed in developmental psychology, confronting many new problems and major changes occurs in the adolescence period, especially now that using the Internet has become increasingly popular. Studies uncover that adolescents use these online spaces to address transition issues, especially to meet the need for intimacy and connection with others that is an important factor in psychological health and well-being (Schmahl, Brown & Blinka, 2012). From the perspective of positive psychology, psychological well-being means the optimal psychological functioning (Rayan & Deki, 2001). In other words, psychological well-being can be defined as the cognitive emotional reactions to perceived personal traits and capabilities, promotion, efficient interaction with the world, good relationship with others, and positive progress over time that can include components such as life satisfaction, energy, and positive mood (Karadmas, 2007). One of the best models that has conceptualized and operationalized psychological well-being is the multi-dimensional model of Ryfe, Singer and Lowe (1998). Psychological well-being in this model, that is the basis of the present study, has 6 factors: self-acceptance (having a positive attitude to self and one's past life), positive relationships with others (having qualified and satisfactory relations with others), autonomy (sense of independence, self-sufficiency, and freedom from norms) Purpose in life (having a long-term and short-term goals in life and perceiving them as meaningful), personal growth (openness to new experiences and having a steady and continuous personal growth), and environmental mastery (the ability to manage life and its requirements) (Lyndfurs, Berns Sun & Landberg, 2006). There are considerable research evidences showing that stress and adverse life events may affect psychological well-being and disrupt it (Segerstrum & Miller, 2004). Excessive users of the Internet may develop two groups of problematic symptoms in the health dimension. The first group includes psychiatric symptoms such as an inability to stop the activity or the feeling of satisfaction in using the Internet or having trouble in school and family. The second group includes physical symptoms such as back pain, headaches, sleep disorders, and so on (Keramali Moqaddam & Hekmat Doost, 2007). In addition, Set (1997) states that the excessive use of the Internet has turned individuals to lonely ones and negatively affected their social interactions.

Professional productivity and efficiency of those who excessively use the Internet comes down, these people come to work late and work below the expectation. Also, those who are addicted to the Internet chat (especially female users) usually become too involved in virtual relations and the likelihood of being infected with unethical issues is high for them. Internet friendship replaces important family relations and old friendships very soon, that in many cases terminates in failure in marriage and inconsistency in familial relations (quoted by Finchel, 2000). All the above mentioned issues have negative impacts on psychological well-being of the Internet users. In short, other negative consequences of excessive use of the Internet approved in previous research include a laxity in social relationships with others, disruption of real-life skills, and dysfunction in the professional state (Duran, 2003), lack of control on behaviors, time distortion and reduction of modesty (De angles, 2000) as well as disconnection from the real life (Bollen & Harre, 2000). It can be concluded from the literature review that the number of research comparing the personality traits and psychological well-being of the Internet users and those who do not use it, especially in rural areas, is rare. Hence, this study was conducted with the aim of answering these two questions:

- 1- Are there significant differences among personality traits of urban and rural Internet and non-Internet users?
- 2- Are there significant differences among psychological well-being and its components in urban and rural Internet and non-Internet users?

Procedure

The present study is Causal-comparative. The study population consisted of all male high school students of urban and rural areas of Shahrekord city in 2013-14 school year. To choose urban students, random sampling-accessible method was used. In each school with the possibility of filling the questionnaires, 50 Internet-user students (using the Internet more than 1 hour a day) were selected among the first, second, third and fourth grades. 50 non-Internet user students were also selected to be compared with the first group. The same method and steps were performed to select 50 Internet and 50 non-Internet-user students among students living in the rural areas.

Research tools

- 1- **The NEO Personality Inventory.** This questionnaire was designed by Costa and McCrae (1992). It has 60 items and assesses the big five personality factors including neuroticism vs. emotional stability (N), extraversion vs. introversion (E), Openness to experiences and ideas (O), Agreeableness vs. conflict (A), and Conscientiousness and tendency to work (C). Subjects respond to each question on a

five-options-scale, including "completely disagree", "disagree", "no opinion", "agree" and "strongly agree". The designers performed this scale on a sample of 500 women and 500 men. Internal consistency by Cronbach's alpha coefficient for the five factors, C, A, O, E, N, were calculated, 92%, 89%, 87%, 86% and 90%, respectively. NEO-FFI has a satisfactory reliability and validity in the association of Human Sciences and Iran, and with a little variation, it has the same factor structure obtained in European and American countries (Kiyamehr, 1381). In Iran, its reliability coefficient via internal consistency for the A, O, C, E, N were computed 0.79%, 0.76%, 0.78%, 0.54% and 0.61% ,respectively (Kiyamehr, 2002).

- 2- **Psychological Well-Being Scale (PWS).** This scale was developed in 1989 by Ryfe. PWS has 84 questions and 6 factors. The purpose of this questionnaire was to operationalize the six factors derived from previous theory, included in the Ryfe's model. These six factors are: 1) self-acceptance, 2) positive relationships with others, 3) autonomy, 4) environmental mastery, 5) purpose in life, and 6) personal growth. On this scale, each factor consists of 14 questions. Subjects are asked to read each question carefully and marks judgment about themselves on one of the options including "strongly disagree" = 1, "somewhat disagree" = 2, "very little disagree"=3, "very little agree"=4", "somewhat agree" = 5, and "strongly agree" = 6 s marked. Ryfe (1989) calculated Cronbach's alpha for PWS subscales as such: self-acceptance (93%), positive relationships with others (91%), autonomy (86%), environmental mastery (90%) and personal growth (87%). This scale was administered to a sample of university students in Iran and its internal consistency was measured using Cronbach's alpha. The results were 77% for environment mastery, 78% for personal growth, 77% for positive relationships with others, 70% for purpose in life, 71% for self-acceptance, 78% for autonomy, and 82% for the overall score (quoted by Mikaeli Monie, 2008).

RESULTS

To analyze the study data, statistical methods were used in both descriptive and deductive levels. Indexes of central tendencies, and dispersion of the study variables were investigated in descriptive statistics level by using tables. In deductive analysis level, data investigation for performing multi variance analysis showed that the assumptions of independence, normality and homogeneity of variance for parametric tests such as t-test were satisfied. However, the assumption of homogeneity of variance-covariance matric was not met. Thus, the parametric t-test was used to evaluate research hypotheses.

Table 1: Descriptive Indexes for scores of urban Internet and non-Internet-user students in psychological well-being and its components

group	variable	Internet users			Non-Internet users		
		N	mean	SD	N	Mean	SD
Psychological well-being		50	227.14	38.17	50	220.26	35.61
Self-acceptance		50	40.60	7.25	50	37.42	6.99
Positive relations		50	37.80	7.05	50	36.48	6.27
Autonomy		50	36.88	7.36	50	37.28	6.19
Environment Mastery		50	37.72	7.53	50	38.72	7.08
Purpose in life		50	37.52	7.71	50	35.02	6.21
Personal growth		50	36.62	6.35	50	35.34	6.73

Table 2: Descriptive Indexes of scores of psychological well-being and its components in rural Internet and non-Internet-user students

group	variable	Internet-Users			Non-Internet users		
		N	mean	SD	N	Mean	SD
Psychological well-being		50	210.22	31.60	50	215.54	32.81
Self-acceptance		50	34.58	6.24	50	34.84	6.45
Positive relations		50	34.58	6.20	50	35.92	6.05
Autonomy		50	36.10	6.45	50	38.82	6.72
Environment Mastery		50	35.62	6.77	50	35.04	5.75
Purpose in life		50	35.88	5.56	50	37.66	6.55
Personal growth		50	33.46	5.33	50	33.26	6.14

Tables 1 and 2 show psychological well-being in urban and rural Internet and non-Internet user students. According to these tables, the mean of psychological well-being is higher in urban Internet-user students in comparison to the rural ones. In addition, the score of psychological well-being in rural non-Internet user students is lower than the urban students, score.

Table 3- Descriptive Indexes of scores of urban Internet and non-Internet-user students in personality traits

group	variable	Internet-Users			Non-Internet users		
		N	Mean	SD	N	Mean	SD
Neuroticism		50	29.42	9.76	50	32.56	7.97
Extroversion		50	27.50	9.86	50	21.34	10.24
Agreeableness		50	27.92	8.81	50	29.70	7.52
Conscientiousness		50	14.33	10.62	50	31.86	8.20
Openness		50	28.52	8.92	50	21.78	8.03

Table 4: Descriptive Indexes of scores personality traits in rural Internet and non-Internet-user students

group	variable	Internet-Users			Non-Internet users		
		N	Mean	SD	N	Mean	SD
Neuroticism		50	28.92	7.64	50	28.22	6.33
Extroversion		50	32.14	7.09	50	22.60	8.08
Agreeableness		50	28.42	6.89	50	28.06	5.88
Conscientiousness		50	31.66	7.51	50	29.70	6.74
Openness		50	27.48	6.50	50	21.82	8.11

Tables 3 and 4 indicate the mean and standard deviation in subscales of personality traits in urban and rural students. According to these tables, the average of neuroticism in urban neuroticism in urban non-Internet user students is more than other groups. The mean of extraversion in rural users is more than other groups, the mean of agreeableness in urban non-Internet users is more than other groups, and the mean of openness to experience in urban Internet users is more than the other group.

The first question: Are there significant differences among personality traits of urban and rural Internet and non-Internet users?

Independent t-test was used to analyze the first question since the assumptions for multivariate variance analysis were not met. The results have been presented in table 5.

Table 5: Results of independent t-test analysis in personality traits of the urban and rural Internet and non-Internet user students

Location	index variable	Mean of Difference	Standard Error of Difference	T	Freedom Degrees	Sig. Level
Urban Internet and non-Internet users	Neuroticism	-3.14	1.78	-1.78	98	0.08
	Extroversion	6.16	2.01	3.06	98	*0.003
	Agreeableness	-1.78	1.63	-1.80	98	0.28
	Conscientiousness	1.28	1.89	0.67	98	0.50
	Openness	6.74	1.69	3.96	98	**0.001
Rural Internet and non-Internet users	Neuroticism	0.70	1.40	0.49	98	0.61
	Extroversion	9.54	1.52	6.26	98	**0.001
	Agreeableness	0.36	1.28	0.28	98	0.77
	Conscientiousness	1.96	1.42	1.37	98	0.17
	Openness	5.66	1.47	3.84	98	0.001

P<0.001** p<0.01*

T-test results in Table 5 uncovered a significant differences in extraversion and openness to experience subscale of in urban and rural Internet and non-Internet users students (p <0.001). However, the differences between the groups were not significant in other subscales (p> 0.05).

The second question: Are there significant differences among psychological well-being and its components in urban and rural Internet and non-Internet users?

To examine the second research question, the t-test was used because the assumption of homogeneity of variance-covariance matrix was not established. The results of this analysis are shown in Table 6.

Table 6: Results of t-test analysis in psychological well-being and its components in urban and rural Internet and non-Internet user students

Location	Index Variable	Mean of Difference	Standard Error of Difference	T	Freedom Degrees	Sig. Level
Urban Internet and non-Internet users	Psychological welfare	6.88	7.38	0.93	98	0.35
	Self-acceptance	3.18	1.42	2.23	98	*0.02
	Positive relations	1.32	1.33	0.98	98	0.32
	Autonomy	-0.40	1.36	-0.29	98	0.76
	Environment mastery	-1.00	1.46	-0.68	98	0.49

	Purpose in life	2.5	1.40	1.78	98	0.07
	Personal growth	1.28	1.30	0.97	98	0.33
Rural Internet and non-Internet users	Psychological welfare	-5.33	6.44	-0.82	98	0.41
	Self-acceptance	-.26	1.26	-.20	98	0.83
	Positive relations	-1.34	1.22	1.09	98	0.27
	autonomy	-2.72	1.31	-2.06	98	*0.04
	Environment mastery	0.58	1.25	0.46	98	0.64
	Purpose in life	-1.78	1.22	-1.45	98	0.14
	Personal growth	0.20	1.14	0.17	98	0.86

P<0.001** p<0.01*

Independent t-test results in Table 6 showed that overall psychological well-being scores in the two groups of rural and urban Internet Non-Internet users was not significant ($p > 0.05$). But there was a significant difference in self- acceptance component in urban Internet and non-Internet users and a significant difference in autonomy subscale in rural Internet and non-Internet users ($p < 0.05$).

DISCUSSION AND CONCLUSION

The purpose of this study was to compare personality traits and psychological well-being of urban and rural Internet and non-Internet user high school students. Findings related to the first question indicated significant differences in the personality traits of extraversion and openness to experiences among Internet and non-Internet user students (both in urban and rural areas); however, no significant differences was found in other personality traits. These findings are consistent with those of Shayeq, Azad and Bahrami (2008) , Khanjani and Akbari (2011) and Gombor and Vas (2008). Yet, they are inconsistent with findings of Fathi, Sohrabi and Saeedian (2011) who reported no significant difference in openness to experience between Internet-addicted and non-Internet addicted students. In explaining these findings, we can say that extraversion assesses factors such as "courage, high self-confidence, being energetic, being vibrant, social acceptance, arousal, gregariousness, positive emotions and optimism" (Gotzmann, Moser, Vetsch, Grieder, Kalghofer & Naef, 2007). Extroverts are social, strong, talkative and active and they like others. Thus it can be concluded that rural users are more extroverts because villages atmosphere is more social and friendly .Moreover, in explaining this finding that there is a significant difference in openness to experience between the two groups, it can be stated that amendable people have a life full of experiences, they are curious and creative and in comparison to closed people, have much more positive and negative feelings. Therefore, it seems that Internet attracts urban people more because they are more curious and urban atmosphere stimulate curiosity more than rural atmosphere (Rshid, 2008).

Findings related to the second research question showed that the total scores of psychological well-being scores were not significantly different in urban and rural Internet and non-Internet user students. This finding was also confirmed in the study of Nalwa and Anand (2003). However a significant difference was found in self-acceptance component in urban Internet and non-Internet users and autonomy component in rural Internet and non-Internet users. Saad Abadi and Hashemi (2012) also confirmed these findings. To explain not-significant difference in total score of psychological well-being between urban and rural Internet and non-Internet users, we can point to multi-dimensional concept of psychological well-being. As Ryfe and Singer (2006) declared, some people emphasize individual and social processes such as having others' positive attention toward the self, self-mastery, and meaningful relationships with others. On the other hand, religious ties also play a role in promoting psychological well-being. Therefore, it cannot be said that being or not being an Internet user or being urban or rural is a very important factor in promotion of psychological well-being. Finally, this study had several limitations. First, in terms of demographics data, all participants were male; thus, findings generalization to female students should be done cautiously. Second, this study was performed in high school section and only in on city (Shahrkord) that restricts generalization of the findings. Therefore, it is needed to conduct similar studies in primary and secondary schools as well as among female students. It is also recommended that further studies investigate the role of other variables such as education, parenting, parenting practices, and family socioeconomic status on the use of the Internet and the students' psychological well-being. In the field of practical suggestions, it is recommended to establish centers for youth to present cultural, sportive, amusing and vocational training activities; these centers will be appropriate alternatives for excessive use of the Internet. It is also suggested that school officials increase information about using the Internet via social training and school-group programs, as well as promoting students well-being by training behavioral skills to prevent behavioral and personality problems caused by inappropriate use of the Internet and malicious sites.

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