Comparison of personality characteristics of social-networks user and non-user girl students in District 1 high schools in Sanandaj City, Iran

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Abstract

BACKGROUND: Adolescence is one of the most active and exciting times in the family life cycle. Access to cyberspace (telegram and instagram) for teenagers and young people is increasing day by day. One of the factors that can play a role in using the internet is personality traits. The purpose of the present study was to compare the personality characteristics of social networks’ user and non-user female students of district 1 high schools in Sanandaj City, Iran.

METHODS: The research was of a causal type with a practical purpose. The statistical population of the study consisted of all social networks’ user and non-user female students of high schools in district 1 of Sanandaj City in the academic year of 2017-2018. In order to do this research, 123 female high school students who were social networks users and 123 social networks’ non-user female high school students were selected randomly by random sampling. The tool used was HEXACO Personality Inventory-Revised (HEXACO-PI-R). The data were analyzed by multivariate analysis of variance (MANOVA) using SPSS software.

RESULTS: There was a significant difference between the two groups in the components of personality traits (honesty-humility, emotionality, extroversion, and openness to experience) (P < 0.050).

CONCLUSION: Since prevention is prior to treatment, considering the results of this study, this phenomenon should be considered as an important social issue. And through proper education, the culture of proper use of social network and its facilities replaces the wrong methods.

KEYWORDS: Personality Type, Social Networking, Students

Introduction

Adolescence is the transition step from childhood to adulthood.¹ Adolescence on the one hand, is disconnecting your ties with the childhood, and on the other hand, it is fascinated by the achievement of youth independence and adulthood, while in reality it is considered neither completely childhood nor completely adulthood. So, the adolescence period has a wide range that is linked to a part of the realm of childhood and joins the world at the end of the spectrum.² In this period, deep and rapid changes occur in the physical, cognitive, and social psychosocial dimensions. Adolescence is a stage of development (biological, psychological, and social) that the person passes through to a stage of life which is expected to establish institutional attributes such as responsibility, self-reliance, etc. in his/her personality and is ready to play social roles (fellowship, fatherhood or motherhood, etc.) and also a special occupational role. As a result of these changes, the person will face a wide range of needs. Mostly, adolescents are associated with peer groups in traditional...
space and before the presence of communication facilities such as chat, mobile phones, and multiple social networks, friendly and emotional relationships and the hobbies of this group of people were limited to the same age groups in spaces such as schools or smaller neighborhood districts.

Undoubtedly, the existence of social networks and the entry of students into this space are affected by the various aspects of communication needs and psychological problems. Especially, the age of maturity has its own particular considerations. As many of the behaviors we take are based on our human personality, adolescents’ personality features can be the determining factor in their life style throughout the life.

Virtual social networking is one of the evolutionary forms of virtual communication and the use of modern communication technologies, especially social networks, in recent decades has brought us into a new era and a new community. So that thinkers such as Daniel Bell consider it as a post-industrial community, Manuel Castells as network community, and Tada Umesao as the information society.³

In 1974, Rosengren reported that individual differences such as age, gender, and personality affected the use of social media.⁴ This hypothesis has been successfully applied to popular media such as cinema, music and television series, as well as books and cultural activities. More research has been conducted about the relationship between Internet and specific personality traits. The five-factor model, or in the other words, the Big Five, is certainly the most used model for this purpose.⁵

What has caused such an issue to be addressed in this opportunity is that social networks have been so influential in the lives of their users in recent years that forms of social communication have also been influenced by these new media. Utilizing these networks by the general public, especially teachers and students, makes them more than a funny tool for finding friends and they have become a tool for achieving long-term political goals and conquering public opinions of a nation and future generations. Researches on the Internet and virtual space all predicate their innumerable benefits in the current century, but these fascinating and unique benefits should not make us ignore their disadvantages.

Therefore, based on the cases, the problem that is raised is that whether there is any difference between the personality characteristics of the social networks’ user and non-user students.

### Materials and Methods

The purpose of the present study was to compare the personality characteristics of social networks’ user and non-user female students in high schools of district 1 of Sanandaj City, Iran. Performed research was of a causal type with a practical purpose. The statistical population of the study consisted of all female high school students who were users and non-users of social networks in district 1 of Sanandaj City in the academic year of 2017-2018 that the total number of members in the statistical society was estimated at 3600. The sample number was obtained using the Cochran formula as 246 people. In order to do this research, 123 female high school students who were social networks’ users and 123 female high school students who were social networks’ non-users were selected randomly by random sampling. We used quota sampling given that high school students were in different educational levels and also with regard to the age difference of one to three years.

**Research instruments:** In this study, the HEXACO Personality Inventory-Revised (HEXACO-PI-R) questionnaire was used to collect relevant data about the subject.
The Ashton and Lee Personality Questionnaire has 100 questions, and six letters of HEXACO stand for: Honesty-Humility (H), Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to experience (O). This questionnaire was made in 2000 but in 2004 was assessed and prepared in the form of 100 substances. All of the 6 dimensions have 4 sub-dimensions and in total, it consists of 96 questions. The reminded 4 questions paid to friendship and were added to the above cases. Scoring of this questionnaire was done in the form of 5-point Likert scale.

This study was conducted to determine the validity and reliability of this questionnaire. Cronbach’s alpha was obtained for honesty-humility (0.92), emotionality (0.90), extraversion (0.92), agreeableness (0.89), conscientiousness (0.89), and openness to experience (0.90).6

In the Iranian version of this questionnaire, Cronbach's alpha was obtained for honesty-humility (0.80), emotionality (0.74), extraversion (0.81), agreeableness (0.73), conscientiousness (0.73), and openness to experience (0.76).7

In another study in Iran, the validity and reliability of this questionnaire was evaluated as desirable. In this validation study, factor analysis was performed and all the factors found in the original version were confirmed in the Iranian version.8

Data were analyzed using descriptive and inferential statistics; in the descriptive statistics section, the mean and standard deviation (SD) and for analyzing the data obtained in the main hypotheses inferential statistics were used. Multivariate analysis of variance (MANOVA) and Mann-Whitney U test were also used via SPSS software (version 22, IBM Corporation, Armonk, NY, USA).

### Results

This study was performed on 246 female high school students in district 1 of Sanandaj City. Of these subjects, 30 people (12.1%) were studying in the humanities, 40 people (16.2%) in experimental sciences, 20 people (8.1%) in mathematics and physics, and 50 people (20.3%) in the vocational school; also 6 people (2.4%) were in the pre-university and 100 people (40.6%) were in the first grade of high school.

Percentages assigned to duration of social networks’ use up to 3.5 hours a day and more than 3.5 hours a day were 60.5% and 39.4%, respectively.

In the table 1, the result of Box’s M test characteristics of social networks’ user and non-user students is shown. Considering the significance level of the test (P = 0.001) and the degree of freedom (df = 2.06) (df 2 = 207457.57), the homogeneity of the dispersion assumption was rejected.

In table 2, based on the Wilcoxon tests lambda, which is equal to 0.31 and with a meaningful significance of < 0.001, and degree of freedom of 75.24, the homogeneity of the dispersion assumption was rejected.

### Table 1. The result of Box’s M test of the characteristics of social networks’ user and non-user students

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Box M</th>
<th>DF</th>
<th>DF1</th>
<th>DF2</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amounts</td>
<td>41.59</td>
<td>2.06</td>
<td>28.00</td>
<td>207457.57</td>
<td>0.001</td>
</tr>
</tbody>
</table>

DF: Degree of freedom

### Table 2. The result of the Wilcoxon test of the personality traits of the social networks’ user and non-user students

<table>
<thead>
<tr>
<th>Test</th>
<th>λ</th>
<th>DF</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>P</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilks’ lambda</td>
<td>0.310</td>
<td>75.24</td>
<td>7.00</td>
<td>238.00</td>
<td>&lt; 0.001</td>
<td>0.698</td>
</tr>
</tbody>
</table>

DF: Degree of freedom
In other words, the six averages had a significant difference with respect to the social networks’ user and non-user students.

Table 3 showed that the components of honesty-humility, emotionality, extraversion, and openness to experience were significant (P < 0.050) and these components had significant differences in the two groups of students.

Table 3. The result of the analysis of variance (ANOVA) of dependent variables in the levels of components of HEXACO’s personality traits in social networks’ user and non-user students

<table>
<thead>
<tr>
<th>Variables</th>
<th>Df</th>
<th>Df1</th>
<th>Df2</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honesty-Humility</td>
<td>15.38</td>
<td>1</td>
<td>244</td>
<td>0.001</td>
</tr>
<tr>
<td>Emotionality</td>
<td>29.83</td>
<td>1</td>
<td>244</td>
<td>0.001</td>
</tr>
<tr>
<td>Extraversion</td>
<td>2.98</td>
<td>1</td>
<td>244</td>
<td>0.005</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>0.51</td>
<td>1</td>
<td>244</td>
<td>0.480</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>0.05</td>
<td>1</td>
<td>244</td>
<td>0.820</td>
</tr>
<tr>
<td>Openness to experience</td>
<td>7.40</td>
<td>1</td>
<td>244</td>
<td>0.005</td>
</tr>
</tbody>
</table>

Df: Degree of freedom

What emerges from the results of this study is that among the six components of HEXACO’s personality traits including the components of honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, and openness to experience, there were no significant differences between two groups in two components of agreeableness and conscientiousness. And only in the components of honesty-humility, emotionality, extraversion, and openness to experience a significant difference was observed between two groups of social networks’ user and non-user students.

Discussion

One of the variables that attracted the attention of researchers and a large volume of studies has been conducted on it, is personality traits.9,10 There are researches in confirming the relationship between personality traits and the use of Internet spaces.11,12

In their research, Muscanell and Guadagno have shown that the amount of chat, online friendship, secret chat, and the rate of downloading sexually-explicit photos and videos with personality characteristics of extroversion have a positive relationship with the amount of Internet use.13

Researchers have done extensive research in this area in order to examine the relationship between personality interface and personality traits with the behavior in virtual social networks. In this regard, Ryan and Xenos used a Facebook-based study to examine the relationship between personality traits, narcissism, and loneliness, with the use of Facebook. The results showed that extroversion and narcissism were positively correlated with Facebook usage, and in contrast to it, conscientiousness, shyness, and loneliness had a negative relationship. They believed that extra personality traits such as the desire to establish social relationships and the existence of a widespread social network could justify greater use of people with high levels of extroversion from virtual social networks.5

On the other hand, Ross et al. explored the relationship between personality traits and Facebook usage. The results indicated that there was a significant but weak relationship between personality characteristics and using Facebook social network.14 However, the results of the research by Amichai-Hamburger and Vinitzky15 on the relationship between using social networks and personality traits, in contrast to the study of Ross et al.14 showed a significant and strong relationship between personality traits and the use of social networks.

The findings of the present study in the dimension of extraversion are consistent with the results of some studies including Wilson et al.,8 Jenkins-Guarnieri et al.,16 Ryan and Xenos,5 and Mark and Ganzach.17

But our findings are inconsistent with the results of studies such as Nithya and Julius,18 Khanjani and Akbari,19 and Young and Rodgers,20 who have been studying the relationship between personality traits and using the Internet. In the dimension of introversion-extraversion, there are the opposite of the results of the present study; this means
that the findings of the research indicate that individuals with high levels of introversion make up the majority of Internet users.

On the other hand, the findings of this research in the area of openness to experience are consistent with the research of Wang et al., Ross et al., and Correa et al. People with a high level of openness to experience are curious about the inner and outer world and their lives are full of experience and appear to be conservative in the face of people with low levels in this factor.

Landers and Bury’s quotation by Shayegh et al. has shown that people have a pleasant, conscientious, and outspoken way of using the Internet.

In the present study, the personality dimension of agreeableness means that more adaptable students are less likely to go into Internet addiction. The more consistent individuals have some distinctive features that are: altruism and helping others, humility, simplicity, trust, preparedness to defend individual rights, facing positive social aspects, and more mental health. The results are consistent with those of Anita and Liliana.

Regarding the results, the personality dimension of conscientiousness cannot significantly predict the amount of Internet usage due to insignificance. This finding does not match the research carried out by Shayegh et al., as their finding suggests that there is a relationship between conscientiousness and the use of Internet. Conscientiousness includes impulse control, according to prescriptions from the community, which facilitates behaviors aimed at the individual's goals and duties. This dimension emphasizes determination and reliability and includes features such as precision, accountability and planning, hard work, and orientation towards progress and perseverance. There is a negative correlation between conscientiousness and the use of Internet. The findings are consistent with those of Anita and Liliana.

Some personality traits may predict Internet usage. For example, people who have a high degree of openness can be said to be curious and inclined to adventure which may be appealing to them as an opportunity for a fresh search.

**Conclusion**

Considering that other factors such as cultural, economic, and other factors are related to personality traits, we can not only consider media such as social networks, but what seems to be necessary is to pay more attention to the impact of the quality of virtual networks on the mood of different people.

Clearly, the high use of virtual social networks and the Internet will bring its own mental and physical crises, which, if not timely detected and addressed, can face the community’s mental health with new challenges and perhaps now that we are still at the forefront of using virtual social networks, we need to be more responsible with these new possibilities; therefore, we should carefully evaluate all aspects and implications of using these social networks and transfer the research results to counselors and educators, school officials and teachers, and the mass media in order to provide a true understanding of the new phenomena of the today’s world.

Parents are also required to familiarize their children with physical, moral, and behavioral hazards, and also with inappropriate, unnecessary, and useless uses of new technologies such as satellite, Internet, virtual social networks, and mobile phones. Enhancing self-awareness and self-control in adolescents is essential for the optimal use of new technologies.

Since prevention is prior to treatment, according to the results of this study, this phenomenon should be considered as an important social issue and through proper education the culture of proper usage of social networks and their facilities should be replaced by wrong methods. Therefore, timely planning can help reduce the complications that result from the improper use of this technology.
Conflict of Interests

Authors have no conflict of interests.

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References