



Determining the Relationship Between Cyberspace Dependence and Identity Orientation in Female Students Aged 20 to 30 Years

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ABSTRACT

This study aimed to determine the relationship between cyberspace dependence and identity orientation among female students, aged 20 to 30 years old studying at the Medical School, Department of Psychology, Islamic Azad University of Medical Sciences, Tehran Branch. The research method was descriptive (non-experimental) correlational study and the statistical population consisted of all psychology students of Tehran's Islamic Azad University of Medical Sciences. The number of 150 students were selected from the statistical population via goal-based sampling method. Data collection tools included Yang Cyberspace Dependence Questionnaire (2002) and Berzonsky Identity Style Questionnaire (1992). Descriptive statistics were used to analyze the results, then Pearson correlation coefficient test and multivariate regression analysis test were used. The results indicated that the calculated correlation coefficients between identity orientation and cyberspace dependence were significant at the level of 0.05. There was a significant negative correlation between cyberspace dependence and identity orientation. The findings also demonstrated that the more students enjoy an informational, normative and commitment identity style, the less dependence they have on cyberspace.

Key Words: *Cyberspace dependence, identity orientation, students.*

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INTRODUCTION

Identity is among the issues which today draws the attention of psychologists, sociologists and politicians, and each has addressed the importance of it through their fields of study. What is of importance for psychologists is the stability of individuals' identities and the acquisition of a successful identity and a successful transition from identity crisis [1].

Formation of identity and acquiring a coherent definition of self are among the most important aspects of human's psychological and social development. Choosing values, beliefs and goals in life constitute the most important features of identity in adolescence and youth. In the study of human personality, identity is seen an essential and internal aspect by which one connects with his/her past and

feels continuance and stability in life. Formation of identity is also a set of skills, worldviews and simulations in childhood that becomes a more or less consistent, continuous and unique whole, bringing about for the individual, a sense of past continuity and orientation in the future [2].

The newest theory in the area of identity, which underlies the theoretical basis of this research, is Brzezinski's Theory with a cognitive-social paradigm. The cognitive-social processing model of identity deals with the strategies and processes that individuals pay attention to or avoid in order to construct and modify their identities. According to this view, cognitive structural identity is a personal reference framework applied for interpreting experiences and

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information related to self and answering questions concerning the concept of meaningfulness and purposefulness.

This theory introduces a cognitive-social model in which adolescents' differences while using cognitive-social processes, problem-solving skills, coping with life problems, conflict with homework and general psychological health are dealt with [3].

Meanwhile, the realm of culture, which includes systems of ideas and behaviors and is constructed by history, undergoes fundamental changes with the rise of new technology; this is while the structure of human relations and communications takes on a new form. The outcome of this is the formation of a new kind of human interaction, which, has practically brought about new opportunities for its manifestation and identity, while distinguishing conventional communication patterns in the mass media. The process of identity-seeking has gone through transformation in modern times. In the past, place has played a key role in creating people's social identity, because people had less contact with the outside world, while face-to-face contact with those around them was taking shape in a fixed environment. In the meantime, indigenous, local traditions formed much of their identity. Following modernization and development of new information and communication technologies such as the Internet, the role of place in forming identity greatly faded away, as media and communication technologies are able to separate the individual from his/her place and connect him/her to the world. As a result, individuals are encountered with innumerable sources of identity-seeking, and identity-seeking takes on a non-local and global form. It appears that along with the emergence of new technology and media, other changes such as prolonged youth and adolescence, individualization, the importance of lifestyle for young people, traditional disintegration and urban revival have become the main areas creating new conditions ahead of young people. These technological developments have also influenced their leisure time, in addition to their tastes and communication needs. The two processes of media prevalence and home-centeredness explain a major part of young people's leisure time in modern societies. Young people spend their leisure time in private and increasingly depend on new media for entertainment [4]. Because the development of any society requires efficient and specialized manpower, scientific centers and universities that provide students with education can lay the ground for such a platform. It appears it is necessary to conduct such research in the field of students. Accordingly, in this study, we sought to demonstrate a relationship between determining the degree of dependence on cyberspace and the orientation of the identity of student youth.

Theoretical Foundations of the Research

Dependence on cyberspace

Information and communication technology is regarded as an advanced technology and one of the main new investments. Now, more than four decades have passed since the Internet was invented and the world has witnessed a very significant development of this new phenomenon [5].

Some research lay emphasis on these two issues. For example, students who care more about video games than others are more likely to experience behavioral problems than other students. Many people prefer to establish relations with a neutral computer than with humans, denoting that they are more willing to communicate socially with Internet friends than with real friends [6].

The major point is that while almost all people are exposed to some form of Internet addiction, some people are believed to be more vulnerable. For example, people who have much time or are often at home or in dormitories are more exposed to Internet addiction. Internet addiction appears to be related to such factors as gender, age, personality traits and environmental characteristics. Research g=has demonstrated that teens are more addicted to the Internet than their parents are. Research results have also indicated that adults are less addicted to the Internet than young people. On the other hand, gender is one of the factors that affects the type of application for using the Internet [7]. In a study done by Young (1996) on the age of people addicted with the Internet, he has reported that 60% of people were women with an average age of 40 and 42% were women without any career (housewife, retiree or student).

Identity

Experts believe that a person's identity is formed when s/he can overcome the loss of personality. And this is done when the adolescent manages to overcome the negative aspects and a crisis of this stage with an internal and continuous coordination being met in playing various roles s/he plays. If the adolescent reaches a sense of security in the early stages, now s/he will look for faith and belief in humans and beliefs that can give him/her a sense of security and internal comfort [8].

Creating an identity and achieving a coherent definition of self is one the most important aspects of psychological and social development in adolescence. Choosing values, beliefs and goals in life is also the most significant aspects of identity. Remember that the turbulent conditions of our time, which threaten our health any moment, require having a clear understanding of our identity. Ignorant of our nature, neither do we know who we are nor can we have faith in ourselves or the world around us. In other words, identity is also a kind of mental concept of the

individual, in addition to creating consistency and unity in the person's personality [8].

Marcia believes that identity is formed when a person's pattern becomes stronger and more stable than before. Identity formation between girls and boys differs from a socio-cultural situation point of view. In closed societies and traditional cultures, identity is formed sooner in girls in particular, while in open, industrial, and complex societies, identities formed in adolescent girls and boys are formed much later, even up to a year. Or in more severe cases, the development of identity may happen in middle ages. On the other hand, one aspect of identity (sexual identity) may be strengthened sooner than other aspects (visual or ideological identity) [9].

Based on this model, Brzezinski has identified three types of identity styles:

1. Informative identity style
2. Normative identity style
3. Confused/avoidant identity style

These identity styles take on more definite psychological meanings as they consider two criteria of commitment (level of adherence to certain beliefs, faith and values), exploration or the level of active search (adolescent's effort to select and achieve values, beliefs, jobs, etc.) and the presence or absence of these criteria.

People with an information identity style actively and somewhat freely follow their goals and values, and having achieved it, they maintain a strong commitment to their beliefs. This style is considered the best type of identity as long as parental supervision has not become a parental intervention [10].

The stage of identity-seeking versus role confusion has been raised as the foundation of Erickson's Theory in his Psycho-social Development Eight Stages. To Erickson, the main task in adolescence is to create a clear and stable sense of identity; an identity that is not only the same as the past (childhood) but is also stable and dissimilar in the future (adulthood) [11].

Research done on Marcia's theory has demonstrated that adolescents who show problematic behaviors find themselves in a state of identity confusion. These are teenagers who do not sense a commitment to identity and have no faith in doing so. These adolescents are much influenced by the negative behaviors of their peers and have little motivation for academic achievement. According to Erickson (1968), these adolescents have been unsuccessful to resolve their developmental crises. For instance, before adolescence, children should have a sense of self-efficacy in some areas. Those children who fail in this area, i.e., experiencing learning disorders, cannot obtain a coherent identity later in adolescence thus becoming confused about identity [12].

Commitment to identity

Although the dimension of commitment in the Marcia's Model [13] has drawn little attention, many socio-cognitive studies have demonstrated that commitment plays a key role in improving individual competency. Commitments provide people with a sense of purpose and serve as a reference framework by which behavior is controlled, monitored, and assessed (Brickman, 2010) [13]. Commitment affects individual's functioning in different respects. For example, people who are deprived of clear and coherent views about themselves and the world in which they live consider the world disorderly, unpredictable, and uncontrollable. In addition, effective individual adaptation and regular personal behaviors appear to be influenced by commitments. Studies have illustrated that identity commitment is related to identity processing styles. Individuals with information and normative processing orientations reveal stronger individual commitments and contracts compared to confused-avoidant individuals [14].

Literature review

Rahimi et al. (2017) examined a sociological analysis of the relationship between the Internet and identity style in adolescents [15]. Findings demonstrated that there was a positive and significant relationship between sociological analysis of Internet relationship and attitudes to the identity style, implying that as Internet use increases in other subscales, a positive attitude to identity style decreases.

Ahqar (2016) investigated the relationship between identity styles and addiction to the Internet among high school students [10]. The findings of this study indicated that in line with the previous findings, confused/avoidant identity style contributed most to predicting and explaining the variance of Internet addiction, which has a positive and significant relationship with Internet addiction. There was also a significant negative relationship between information identity style and Internet addiction. In a study on the relationship between Internet addiction and social self-efficacy, Rahmati, Keramati (2016) investigated identity styles and gender differences in students [16]. Their results suggested that there was a negative relationship between Internet addiction with social self-efficacy, and information and normative identity styles having a positive relationship with confused-avoidant identity style. Twenty-three percent of the total variance of Internet addiction could be explained by the mentioned variables.

Parvizi, Sarabi and Karamiechameh (2016) studied the relationship between identity style and Internet addiction in students at the Payame Noor University, Songhor Branch [17]. The results also suggested that there was a significant relationship between all dimensions of identity style and Internet addiction; in the meantime, the

component of normative identity was most related to tendency to Internet addiction. As a result, a positive relationship was found between identity style and Internet addiction. In a study, Larina (2016) investigated the relationship between the feeling of loneliness and Internet addiction. The findings showed that young people who feel lonely have a strong tendency for the Internet as it results in weakness in their identity style [17].

In their research, Michels and Welis (2014) investigated the relationship between Internet radical use and loneliness and depression. The results demonstrated that there was a relationship between Internet radical use with loneliness and depression [18]. Internet-dependent users were found to be lonelier and more depressed than those with no dependence. Young people who use Internet social networks look for incentives they have not received in real life and in relationships with family and friends.

RESEARCH METHODS

The present study was a descriptive-correlational study.

The statistical population of this study consisted of all female students of the Psychology Faculty of the University of Medical Sciences who were studying in the second semester of 2019.

The research sample was selected via convenience sampling method from among female students at the School of Medicine, Department of Psychology, Islamic Azad University of Medical Sciences, Tehran. And since the research was correlational, the sample size should be determined based on the formulas ($N > 50 + 8x$) (Tabakhnick, Fidel, 2007) and according to the number of research variables, the sample size required based on the formula was calculated as follows: Number of samples $< 50 + (x \times 8)$. Considering the fact that the number of independent variables and their subscales in this study amount to a total of 13 cases, the sample size should be more than 154 people [19].

Research Tools

Cyberspace Dependence Questionnaire

The Young Cyberspace Dependence Questionnaire (2002) has 20 five-choice questions with a score range from zero to one hundred. In the questionnaire, the reader must answer each of the 20 questions on a six-degree Likert scale including "Never" (0), "Rarely" (1), "Sometimes" (2), "Usually" (3), "often" (4) and "Always" (5). In this questionnaire, a score of 20 to 49 suggests a normal user, of 50 to 79 indicates a high-risk user, and of 80 to 100 indicates an Internet addicted user. Yu et al. (2004) stated the reliability coefficient of the questionnaire using Cronbach's alpha method to be 0.84, 0.81, 0.90 and 0.86, respectively. Nastizazi and Ghasemzadeh (2007) also reported the reliability coefficient of the questionnaire

using Cronbach's alpha method to be 0.84, 0.81, 0.90, 0.86, respectively. Identity orientation questionnaire:

The Berzonsky's Identity Style Questionnaire was developed in 1992 to investigate the relationship between identity styles. This instrument is a 40-item scale, of which 11 items are related to the informative scale, 9 questions to the normative scale, 10 questions to the avoidance scale (confusion) and the other 10 questions to the commitment scale, which is used for secondary analysis. Each item is scored on a five-point scale (strongly disagree = 1 and disagree = 2, somewhat agree = 3, strongly agree = 5). With the difference being that items 9-11-14-20 are inversely scored.

Ghazanfari (2003) calculated the validity of the questionnaire by factor analysis and concurrent validity using the general health questionnaire. Using Cronbach's alpha, he demonstrated that the test had good internal consistency. Shams Esfandabad et al. (2011) reported the alpha coefficient for Informative identity style, normative identity style, confused/avoidance identity style, commitment to be 0.63, 0.56, 0.61 and 0.71.

Administration method

Data in this study was collected through field and library methods. First, theoretical foundations and literature review were examined through articles available on various sites, books, etc. In the next stage, a sample of 154 female students of the Faculty of Psychology, Islamic Azad University of Medical Sciences, Tehran were selected to run the design and data collection. At the same time, they responded to the Yang et al.'s (2002) Cyberspace Dependence Questionnaire, the Singh and Bahargawa Emotional Maturity Scale (EMS) (1990), and the Berzonsky Styles Identity Questionnaire (1992).

Data analysis method

Data analysis based on research objectives was conducted using SPSS software (22) at both descriptive and inferential levels as follows. In order to evaluate the research results, descriptive method (central index, dispersion index) was used; to assess the normalcy of data distribution, Kolmogorov-Smirnov test, and Pearson correlation coefficient and multivariate regression analysis were used to analyze the research questions.

RESULTS AND FINDINGS

Descriptive analysis of data

Table 1. Frequency distribution of demographic information of statistical sample

Variable	Groups	Fre.	Fre. Per.
age	25-20	84	56
	30-25	66	44
	Total	150	100
	Single	89	59.3

Marriage status	Married	61	40.7
	Total	150	100

Descriptive statistics of research variabl

Table 2. Indicators of tendency to the center and dispersion of research variables

Variable (identity styles)	Mean	SD	Variance	Min	Max
Informative orientation	38.95	6.26	39.19	20	72
Normative orientation					
Confused orientation					
Commitment					
	32.04	5.09	25.95	17	44
	23.23	6.120	36.54	11	58
	36.20	6.12	37.45	18	50
Identity (total score)	130.73	14.78	218.54	91	175
Variable (dependence on cyberspace)	Mean	SD	Variance	Min	Max
Dependence on cyberspace	50/46	15/66	245/42	29	78

Table 2 indicates the indicators of tendency towards the center and the dispersion of the components of identity styles. As seen in the table, the total score of the mean on the scale of identity styles in the studied group was (130.73) and the highest mean on this scale was related to the subscale of informative orientation (38.95) with the lowest mean of this scale being related to the confused/avoidance orientation subscale (23.23). The study group obtained an average of 50.46 on the cyberspace dependency scale.

Analytical Findings

Kolmogorov-Smirnov test

First, Kolmogorov-Smirnov tests were calculated to examine the normalcy of the frequency distribution of each case and the data are provided in the table below. Then, each of the research hypotheses was examined.

Table 3. Results of Kolmogorov-Smirnov test to evaluate the normalcy of research variables

Research variables	Kolmogorov- Smirnov	Sig.
Emotional maturity	1/23	0/099
Informative		
Normative		
Confused		
obligation		
Dependence on cyberspace	1/22	0/100
	0/95	0/32
	0/98	0/29
	0/87	0/42
	1/16	0/13

As seen in Table 3, as the value of F is insignificant and the level of significance is above 0.05, the data of the present variables are found to be normal. Therefore, appropriate parametric tests can be used to analyze the data.

Investigation of Research Hypothesis

Research hypothesis

There is a relationship between the degree of dependence on cyberspace and the identity orientation of young students aged 20 to 30 years.

Table 4. Summary of the results from the correlation matrix between cyberspace dependence and identity orientation

Variables	1	2	3	4	5
1-informative	-				
2-normative	**0/81	-			
3.Confused	**-.0/60	**-.0/62	-		
4. commitment	**0/64	**0/75	**-.0/52	-	
5. Dependence on cyberspace	**-.0/17	*-.0/16	**0/22	*-.0/20	-
	p<0/05*		p<0/01**		

According to Table 4, the relationship between cyberspace dependence and identity orientation was examined using Pearson torque correlation coefficient. The cyberspace dependence component was found to have a significant negative correlation with informative identity style ($p = 0.05$, $n = 150$ $r = - 0/17$,). Dependence on cyberspace had a significant negative correlation with normative identity style ($p < 0.05$, $n = 150$ $r = - 0.16$). Dependence on cyberspace had a significant positive correlation with confused identity style ($p < 0.01$, $n = 150$ $r = 0.22$,). Dependence on cyberspace had a significant negative correlation with the identity style of commitment ($p < 0.05$, $n = 150$ $r = - 0.20$). Therefore, the more students enjoy a confused identity style, the greater dependence they have on cyberspace, and the more they enjoy an informative, normative, commitment identity style, the less dependence they experience cyberspace.

CONCLUSION

An individual enters into social and economic life and cultural adaptation and role-playing during adolescence. Growth characteristics can be studied in the age group of 20 to 30 years and in the categories of identity, social and cultural development, stability of thought and worldview, job and spouse selection as well as family formation. This

era is important for parents and the individual. Therefore, in this article, the relationship between the level of dependence on cyberspace and the orientation of the identity among female students was investigated. The results are as follows: There is a relationship between the degree of dependence on cyberspace and the identity orientation of young students aged 20 to 30 years. The calculated correlation coefficients between identity orientation and dependence on cyberspace were significant at the 0.01 and 0.05 levels. In sum, one can suggest that there was a negative relationship between informative and normative identity style and commitment with the level of dependence on cyberspace and between confused identity style with the level of dependence on cyberspace. One can argue that the higher the informative identity style, normative identity style, commitment identity style among students, the less the dependence on space in students. And the more the identity style is found to be avoidant (confused) among students, the higher the degree of dependence on cyberspace among students. The findings of this study are in line with the findings of Rahimi et al. (2017), Ahqar (2015), Parvizi et al. (2015), Fathi et al. (2013), Akhtenberg (2016) [10, 15, 17]. To explain the findings of this study, one can state that the informative identity style is seen as the most adaptive style and in fact, it is a problem-solving strategy or a coping mechanism to handle daily situations. People with this style of identity use a careful and logical mechanism to manage daily situations and use the Internet in a measured way in the direction of specific goals set. People with a normative identity style enjoy clear goals and orientations, have a strong commitment, act based on a clear educational and career plan, and are well organized. They also enjoy seriousness and perseverance to implement these programs and to attain educational goals. Since people with a normative identity style have seriousness and perseverance to encounter with matters, they have seriousness and perseverance plan to achieve their goals in an organized manner. They also use the Internet logically to meet their goals. Confused-avoidance identity style is a sign of evasiveness and carelessness in problems and is associated with low levels of commitment and self-confidence as well as unstable self-concept. These people pay little attention to the long-term outcomes of their choices and are engaged in an exploration, but their exploration is unorganized and random. Because of their lack of self-confidence and low self-esteem, as well as their lack of proficiency to communicate closely with others in a real world, these people prefer an environment without negative feedback (such as the Internet) to the real world and enjoy anonymity. Students who are very much dependent on cyberspace have fewer social interactions on campus and go through immoral crises. On the other hand, the more confused the identity, the greater the percentage of Internet

addiction in students. The more people are online, the more confused the students' identities become. Greater degree of dependence on cyberspace decreases the level of commitment among students [15].

REFERENCES

- [1] Giddens A. *Modernity and self-identity: Self and society in the late modern age*. Stanford, CA: Stanford University Press. 2010.
- [2] Babakhani N, Asadniaz Sh, Alizadeh Zakaria R, Bakhtiari-Arksi H. The Relationship between Identity Styles and Marital Satisfaction in Married Couples in Tehran. *Research Article, Journal of Principles of Mental Health*, Volume 18, Issue of the Third International Conference on Psychology and Educational Sciences. 2016: 471-477
- [3] Ganji H. *Mental Health*. Tehran: Arasbaran Publishing. 2015.
- [4] Abbasi Shavazi M T, Moeini M, Purdian R. Cyberspace, companionship and high-risk behaviors: A study of the relationship between students' companionship in cyberspace and high-risk behaviors in real and virtual space. *Social Order Research Quarterly*, Year 10. 2018; (3): 78-104
- [5] Mughnizadeh Z, Vafaie Najjar A. Investigating the Relationship between Attachment Styles and Internet Addiction in Students, *Journal of Principles of Mental Health*. 2015;18 (4): 6-220.
- [6] Atashpour H, Jalali D, Asadian S. Comparison of Internet addiction according to the thinking styles of its users. *Journal of Knowledge and Research in Psychology*. 2011; 23.
- [7] Omidvar A, Saremi A A. *addiction to Internet*. Mashhad: Tmrin Publications. 2017.
- [8] Ahadi H, Bani Jamali Sh S. *Developmental Psychology: Basic Concepts in Child Psychology*. Tehran: Bonyad Publications. 2017.
- [9] Schultz D P, Schultz S E. *Personality theories*. Translation: Seyed Mohammadi, Yahya. (2017). Tehran: Virayesh. 2015.
- [10] Qudsi A. The Relationship between Identity Styles and Internet Addiction in High School Students. *The Third National Congress of Social Psychology of Iran*, Tehran, May 17 and 18, 2016.
- [11] Jenkins R. *Social identity*. Translation: Yarahmadi, Touraj. (2015). Tehran: Shirazeh Publications. 2010.
- [12] Burke L E. *Developmental Psychology*. Translation: Seyed Mohammadi, Yahya. (2017). Tehran: Arasbaran Publications. 2014.
- [13] Berzonsky MD, Branje SJ, Meeus W. Identity-processing style, psychosocial resources, and adolescents' perceptions of parent-adolescent

- relations. *The Journal of Early Adolescence*. 2007 Aug;27(3):324-45.
- [14] Shokraei Z, Eskandari H. Survey and comparison of identity databases among girls and boys. *Motaleat*. 2014.
- [15] Rahimi H. The relationship between committed people and their Internet addiction. *Quarterly Journal of Management in Education*. 2017; 8.
- [16] Rahmati S, Keramati H. The relationship between Internet addiction and social self-efficacy, identity styles and gender differences in students. *Health system research*. 2016; 12(1): 21-26
- [17] Parvizi F, Sarabi S, Karamicheme F. Study of the relationship between identity style and Internet addiction (students of Payame Noor University, Songor Branch). *Journal of Nations Research*. 2016; 2(13): 93-108
- [18] Mitchell K, Welis M. Problematic 'internet experiences Primary or secondary presenting problems in persons seeking mental health care? *Social Science & Medicine*. 2014; 65: 1136- 1141.
- [19] Tabakhnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.), Boston: Allyn & Bocon.