The Relationship between virtual social networks usage and gender role attitude in university students of Iran

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ARTICLE INFO	ABSTRACT
Article type: Original article	***Background & aim:*** Gender role attitude is one of the key issues affecting the stability of family foundation, which is under the influence of mass media. New media and the process of globalization are effective in promoting gender equality, and an example of modern media is virtual social networks. This study aimed to determine the relationship between virtual social media usage and gender role attitude in the students of Mashhad University of Medical Sciences and Ferdowsi University, Mashhad, Iran.
Article History: Received: 15–Mar -2016 Accepted: 17- May- 2016	***Methods:*** This cross-sectional study was conducted on 909 students of two large universities including Mashhad University of Medical Sciences and Ferdowsi University, Mashhad, Iran, in 2015. Data were collected using three questionnaires enquiring the demographic data, type of social media students used, and gender role attitude. The questionnaires were sent to the students via email, or they were filled out them through face-to-face interviews. Data analysis was performed using Kolmogorov-Smirnov tests and Spearman correlation coefficient in SPSS software, version 23.
Key words: Gender role attitude Students Type of usage Virtual social networks	***Results:*** There was no significant relationship between the type of social media and gender role attitude (P=0.24). Furthermore, no significant relationship was observed between the type of social media and the dimensions of gender role attitude including gender equality and gender stereotypes (P=0.35 and P=0.24, respectively). ***Conclusion:*** There was no significant relationship between the type of social media and gender role attitude and its dimensions. Accordingly, it seems that the content used by these networks had no impact on the gender role attitudes of the users. Further studies are recommended to investigate the other possible factors affecting gender role attitudes.

Introduction

Technological development and the expansion of communications industry, especially the virtual social networks and the Internet led to increased speed and precision of works. Moreover, telecommunications has virtually reduced the world to a global village. The Internet conveys millions of messages affecting the values, attitudes, and cultural identities in both macro- (sociocultural) and micro- (users) levels (1).

So far, the Internet is the most liberal environment humankind has faced (2). As the influence of the Internet extended, the information society has now become worldwide and is not limited to a specific region. Briefly, cultural exchange, easy access to information resources, preventing social isolation, and healthy entertainment are among the most important positive effects of the Internet on

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social and cultural issues.

On the other hand, several disadvantages of this media entail cultural invasion, easy access to prohibited sources, and indifference to the value of human life. In fact, with the advancement of these media, humankind may face possible negative consequences of the modern world and its modern communication technologies (3). Social media are relatively new phenomena that changed many aspects of human life.

Since the emergence of social media in the late 1990s and through its evolutionary process until 2003 and so far, it could attract millions of users from all over the world by making it possible to communicate quickly and simulta-neously or non-simultaneously and to access to vast amount of information. Moreover, its widespread dissemination caused a multitude of economical, cultural, political, and social applications (2).

Social media are the sites of the gathering of hundreds of millions of the Internet users, who interact and exchange information regardless of frontiers, languages, genders, and cultures. As a matter of fact, social media are designed to enhance social interactions in virtual environment (2). Youth engagement in these networks is increasing, and these media have become the preferred communication media, especially for young individuals.

In addition to the fact that people can make new friends in these networks or talk to their old friends about the process of changing their lives, they can exchange their views with peers and share their opinions and beliefs (4). Asgharkia in 2013 conducted a study about the factors related to the students' attitude towards Facebook social network and concluded that multiple factors such as, broadcasting of various information and news, freedom of communication, free flow of information on networks, giving users the ability to control their personal information, and the principal of equality played a key role in joining the students to this network (5).

Other effective factors entail the need for inclusion and to acquire a virtual identity (6). The gender role refers to a set of responsibilities that culture, society, adults, and biological nature expect each gender to do including the behaviors and attitudes (7-9). The gender role attitude is one of the effective factors in stabilizing the family foundation. More specifically, the gender role is defined as a behavior that the society expects each gender (10).

Several studies were conducted to assess the relationship between the type of social media and gender role attitudes. The available studies have focused on modern information and communication technologies such as the Internet and their impact on the various dimensions. Various factors influence gender role attitudes including occupation, education, age, religious beliefs, gender stereotypes, mass media, community and environment, family, peers, culture, gender, and race (11).

Khajehouri in his article in 2011 entitled as "Mass Media and Gender Role: Comparing Past and Present Technologies" demonstrated that modern communication technologies such as the Internet, computer, and cellphone had a significant effect on adopting an attitude towards gender equality. In other words, during the modern age, the values such as loyalty, sympathy, and reproduction, and various dimensions of gender role attitude such as a man as a breadwinner and a woman as a housewife have been ignored.

Consequently, women consider themselves responsible for new roles and responsibilities that are involved in their personal development rather than childbearing. Globally, these values are disseminated through the development of technology and media (12). The results of Khajehnoori's study on gender role attitude among the students of Abadeh high school, Ahvaz, Iran, indicated that gender variables, mass communicational media, religiosity, and family size explained 35.4% of the variation in the dependent variable.

Given the results of the mentioned study, in large cities, women established their right to equality with men more than in small cities, and this was related to the process of globalization (12). Oprica in Romania revealed that the media and especially the Internet were effective in promoting the gender equality. The younger generation are more attracted to the Internet; therefore, they are more exposed to the ideas of the West and have embraced the concept of gender equality (12).

Moreover, Escobar-Chavez et al. in 2005 found that media had an important influence on

gender role attitudes and its related behaviors (12). Enayat in his article entitled as "Globalization of Culture and Tendency toward Childbearing" stated that modern media rather than representing women in maternal roles and parenting, represent them in social and non-familial roles. In fact, new data and communication technologies directly introduce the working, single, educated, artist, and athlete women as the most successful female role models to the society. Furthermore, these media unconsciously transmit this message to their users that playing the maternal role is not a score (13).

The content used by these networks can be effective in the development of the gender role attitude. According to the results of the study conducted by Mazinani in 2013, modernization or cultural persistence was dependent on the people using social media. Accordingly, the individuals who use science education and news were more likely to remain traditional; however, those who use entertainment contents tended to become involved in the process of modernization, which ultimately leads to gender equality attitude in individuals (14).

All of these studies indicated the relationship between modern media and the gender equality attitude; nevertheless, all of these studies evaluated the media in general. Therefore, the present study aimed to determine the relationship between the type of social media and the gender role attitude in the students of Mashhad University of Medical Sciences and Ferdowsi University, Mashhad, Iran, 2015.

Materials and Methods

This cross-sectional study was conducted on 909 students of Mashhad University of Medical Sciences and Ferdowsi University, Mashhad, Iran, in 2015. The samples were selected from all the faculties of both universities through non-probability sampling method. Data were collected using three questionnaires enquiring the demographic data, type of social media they used, and gender role attitude. At first, the questionnaires were sent to all the students via email in August 2015. Due to the low sample size, the questionnaires were sent to all the students in October for the second time. Consequently, a total of 510 students filled out

the questionnaires online, and the other samples were directly provided with the study instruments. Therefore, we obtained 1,048 completed questionnaires.

The inclusion criteria entailed being Iranian, a student of Mashhad University of Medical Sciences or Ferdowsi University, and a volunteer to participate in the study. The students who had an offspring or a child in their first-degree relative with physical or mental disorders such as Down syndrome, autoimmune disorders, thyroid diseases, lupus, rheumatoid arthritis, and multiple sclerosis were excluded from the study. Ultimately, out of 1048 students, 909 subjects were enrolled in the study.

To assess the type of social media that the participants used, they scored to each topic from 1 (not at all) to 5 (very much) based on the Likert scale. The included topics were current issues in Iran, as well as family-related, employment-related, medicine- and nutrition-related, entertainment, sports, religious-related, ethical, literary, and communicational issues.

In order to evaluate the gender role attitude, the gender role attitude questionnaire of Kiani was utilized. The validity and reliability of the questionnaire were confirmed and categorized in two dimensions of gender equality and gender stereotypes. This questionnaire contained 45 items that were scored by 5-points Likert scale from "completely agree" to "completely disagree".

First, seventh, and ninth items were related to gender stereotypes that were reversely scored, which means that "completely agree" was scored 5 and "completely disagree" was scored 1. Eighth and 10th to 45th ones were related to gender equality that most of them were scored directly, which means that "completely agree" was scored 1 and "completely disagree" was scored 5. Further, the 25th, 26th, 38th, 44th, and 45th were reversely scored, too.

The gender equality was scored from 37 to 185, and the higher score was indicative of the most tendency towards gender equality. The gender stereotypes were scored from 8 to 40, and higher scores indicated that the individuals accepted the gender stereotypes more. In this study, to determine the validity of the instruments, content validity was used and the reliability was determined by internal

consistency method and Cronbach's Alpha, which was α=935 and α=0.88 for social media and gender role attitude questionnaires, respectively.

Data analysis was performed after collecting, encoding, and entering the data to the computer, using descriptive and analytical statistics with the help of SPSS software, version 23. In addition, Kolmogorov-Smirnov test was employed to determine the distribution of quantitative variables. The variables of this study were not normally distributed; therefore, nonparametric tests were utilized for statistical analysis. Spearman correlation coefficient was used to investigate the correlation of quantitative data. The general linear model was used to show the effect of the type of using virtual social networks and the control of interventional variables. In all the measurements, P-value less than 0.05 was considered statistically significant.

In this study, an informed consent was obtained from each participant before filling the questionnaire. Additionally, this study was approved by the Ethics Committee of Mashhad University of Medical Sciences, Mashhad, Iran.

Results

This study was conducted on 909 students, 87% of whom were the members of at least one of social media. The participants aged between 18 and 45 years old and the mean age was 24.72 years old. About 550 cases (60.9%) were female and 352 (39.1%) subjects were male and 7 cases did not specify their gender. Out of all the subjects, 628 (69.3%) and 265 (29.4%) students were single and married, respectively, and 16 cases did not specify their marital status. Out of the married ones, 173 (67.6%) students had no children and 47 (18.4%) subjects had a child. In terms of family size, 433 (49.7%), 333 (38.2%), and 143 participants had zero to two, three to five, and more than five siblings, respectively.

Table 1. The correlation between the type of social media and the gender role attitude and its dimensions

Variables	Spearman correlation coefficient results	P-value
The type of social media and the gender role attitude	0.039	0.24
The type of social media and gender stereotypes	0.039	0.24
The type of social media and gender equality	0.031	0.35

Based on the results, the mean score of gender role attitude, gender stereotypes, and gender equality were 145.7±17.07, 58.91, and 54.98, respectively. According to the results, the subjects were more prone to gender stereotypes in comparison to the gender equality. Regarding the results of Spearman correlation coefficient test, there was no significant correlation between the type of social media and the gender role attitude.

As the results of this study indicated, entertainment was the most used topic with the mean score of 2.92±1.74. The Spearman correlation coefficient test revealed that the employment-related issues had a significant and direct correlation with gender stereotypes. Nonetheless, medicine and health issues, entertainment topics, literary-related issues, and communication with others had a significant correlation with gender role attitude and gender equality.

The religious-related issues had significant and indirect relationship with gender role attitudes and gender equality, which means that the more frequent use of religious-related issues in social media resulted in lower tendency towards gender equality.

The impact of the type of social media on the gender role attitude and its dimensions (e.g., gender stereotypes and gender equality) was investigated after controlling some demographic variables. Regarding the results of the current study, the type of social media had no effect on gender stereotypes after controlling the variables of family size and age (P=0.449). Moreover, the use of social media did not affect the gender equality (P=0.23).

Although female gender and age had positive impact on gender equality, the family size had negative effect on it. In addition, the use of social media had positive influence on gender role attitudes. Additionally, female gender and age had more effect on gender role attitudes in comparison to male gender.

Table 2. The mean scores of the types of social media and their relationship with gender role attitude and its dimensions

Type of social media	Mean±SD	Dependent variables/ type of test/ P-value & r		
		Gender stereotypes/ Spearman correlation coefficient	Gender equality/ Spearman correlation coefficient	Gender role attitudes/ Spearman correlation coefficient
The issues related to the current condition of Iran (social, events, …)	2.11±1.764	r=0.037 P=0.41	r=0.01 P=0.76	r=0.02 P=0.53
The family-related issues (marriage, couple interactions, children)	2.07±1.69	r=0.02 P=0.54	r=0.003 P=0.92	r=0.000 P=0.99
The employment-related issues	1.86±1.69	r=0.076 P=0.022	r=0.008 P=0.79	r=0.02 P=0.54
The issues related to medicine, health, and nutrition	2.61±1.75	r=-0.009 P=0.79	r=0.136 P<0.001	r=0.145 P<0.001
The issues related to entertainment, hobby, and spare time	2.92±1.74	r=0.011 P=0.75	r=0.079 P=0.017	r=0.008 P=0.015
The sport-related issues	1.99±1.73	r=-0.022 P=0.5	r=0.005 P=0.89	r=-0.007 P=0.84
The religious-related issues	2.22±1.74	r=0.077 P=0.021	r=-0.088 P=0.008	r=-0.074 P=0.026
The issues related to the ethics and apostasy sentences	2.80±1.80	r=0.007 P=0.82	r=0.058 P=0.08	r=0.06 P=0.067
The literary-related issues	2.40±1.80	r=-0.044 P=0.18	r=0.109 P=0.001	r=0.105 P=0.002
Communication with others	2.78±1.82	r=0.017 P=0.59	r=0.087 P=0.009	r=0.102 P=0.002

Table 3. The Impact of the type of social media on gender role attitude and its dimensions

Variables	Gender stereotypes regression coefficient	Gender equality regression coefficient	Gender role attitude regression coefficient
The type of virtual social media	r=0.011 t=0.757 P=0.449	r=0.076 t=1.19 P=0.23	r=0.097 t=2.24 P=0.025
Gender Female Male	r= _ t= _ P= _ _	r=12.7 t=7.9 P<0.001 _	r=13.3 t=12.1 P<0.001 _
Family size	r=0.557 t=1.965 P=0.05	r=-2.6 t=2.7 P=0.038	r=_ t= _ P= _
Age	r=-0.094 t=2.61 P=0.009	r=0.76 t=4.68 P<0.001	r=0.39 t=3.98 P<0.001

Discussion

This study sought to evaluate the relationship between the type of social media and gender role attitude in the students of Mashhad University of Medical Sciences and Ferdowsi University, Mashhad, Iran. According to the results of this study, a significant group of subjects (87%) were the members of at least

one of social networks, which was inconsistent with the results of the study conducted by Javadinia in 2013.

As the results of the mentioned study indicated, 57% of the students were aware of social networks and 37.8% of them were the members of these networks (15). This

inconsistency might be due to the fact that social networks have grown since two years ago and more students have join them. In the present study, the mean percentage of gender stereotypes was 56.91% and the mean percentage of gender equality was 54.98%, which were almost similar.

Our results were inconsistent with the results of the study conducted by Kiani et al. in Zanjan, 2006, on 160 employees. According to their results, the mean score of gender stereotypes was 27.20 and the mean score of gender equality was 116.03, and the mean scores of gender stereotypes and gender equality were lower and higher than the amounts reported by the present study, respectively (11).

This inconsistency might be due to difference in the research community. In Kiani's study, the participants were all employees, while the participants in our study were all students. Furthermore, the participants of Kiani's study and our study were from two different age groups that could affect the gender role attitudes. In the study of Bernhard in 2006, Sweden, most women were egalitarian and only 14.1% of them had a traditional gender role attitude (16).

However, in this study, the mean percentage of the traditional gender role attitude was high. This disagreement in the results seems to be due to difference in the social and cultural structures of our society compared to the Bernhard's study. The findings of this study showed no significant relationship between the type of social media and the gender role attitude; furthermore, there was no significant relationship between the use of social media and gender equality (Table 1).

These results were not in line with the results of Mazinani's study in 2014, which revealed that the use of social media affect the creation of modernity or to persist on traditional culture. Therefore, those who use science education and news topics were more likely to persist on traditional culture; nevertheless, those who use entertainment topics were more likely to become involved with modernity. Ultimately, using these topics led to adopt an attitude towards gender equality (14).

In the current study, entertainment-related items had a significant and direct relationship with the gender role attitudes and gender equality, which means that the greater use of entertainment media developed gender equality (Table 2). This finding was consistent with the findings of Mazinani's study. The media related to health, nutrition, and medicine had significant and direct relationship with the gender role attitude and gender equality, which was not discussed in Mazinani's study.

Given the results of the study conducted by Javadinia in 2014 on students, most of them used social media to communicate with their old friends and be entertained (15). It is worth mentioning that by the development of networks and their various types, the use of these networks became much wider than before and was not limited to entertainment (17). Using religious-related issues had a significant and indirect relationship with the gender role attitude and gender equality and had a significant and direct relationship with gender stereotypes.

Regarding the results of Fazeli's study in 2014, there was a relationship between gender role attitude and its dimensions with religious-related issues; however, Mazinani did not mention the religious-related issues as effective factors (18).

This inconsistency might be due to the fact that the types of social media in the Mazinani's questionnaire were summarized in four items, while in this study, we assessed 10 types of social media. As demonstrated in Table 3, the gender (female) and age had a positive effect on the gender role attitude and gender equality. This means that females and older subjects tended to be more egalitarian in comparison to the males and younger participants.

These results were in agreement with the results of Fazeli's and Khajenoori's studies. Fazeli demonstrated that gender and age were effective in the gender role attitude and its dimensions, and Khajenoori stated that women were more egalitarian than men (12). According to the results, family size had a negative effect on the gender equality, it means that the lower number of children was related to higher scores of the gender equality. This finding was in line with the results of Khajenoori's study, which revealed that women who were more

egalitarian did not consider themselves to be responsible for childbearing and parenting and were involved playing new roles for their personal development (12).

One of the important strengths of the present study was the investigation of a subject, which has gained special attention in the current policies of Iran regarding fertility. Because several questionnaires were completed online, there was no direct control of the researcher on the completion of the questionnaires. As a result, the respondents might not answer the questions with sufficient precision, and it could be considered as one of the limitations of this study. Therefore, it is recommended to culturalize about online data collecting, as an accurate and reliable method, among academic community.

Conclusion

Given the results of this study, most of the students used social media to communicate and be entertained. Generally, the type of social media had no significant relationship with the gender role attitude and its dimensions. Nevertheless, multiple types of social media such as entertainment and religious-related issues had significant relationship with the gender role attitude. In this regard, the need to pay attention to the content of social media is increasingly evident. Further studies are recommended to investigate the relationship between the use of social media and the rate of marital conflict, divorce, and emotional divorce.

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Conflicts of interest

The authors declare no conflicts of interest.

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