Internet Dependency and Its Relation to Sexual Desire and Satisfaction in Married Clients Referred to Healthcare Centers in Tabriz, Iran

Abstract

Background: Internet dependency has become one of the 21st century dilemmas affecting different aspects of married life such as sexual relationships. Considering the importance of family in the Iranian society, this study aimed to determine how internet dependency is related to sexual desires and satisfaction among married clients of healthcare centers. **Materials and Methods:** This cross-sectional study was conducted on 326 married clients referred to healthcare centers in Tabriz City, Iran, between February and August 2019. Proportionate stratified random sampling was used based on the health complexes and the healthcare centers covered by them. One of the healthcare centers covered by each complex was selected randomly. The data collection tools included a demographic characteristics checklist, the Internet Addiction Test (IAT), the Index of Sexual Satisfaction (ISS), and the Hurlbert Index of Sexual Desire (HISD). The collected data were analyzed using the Pearson correlation coefficient test and multiple linear regression model. **Results:** The mean (SD) was 37.33 (15.37) for of internet dependency, 59.20 (17.27) for sexual desire, and 104.45 (22.81) for sexual satisfaction. There was a negative correlation between internet dependency and sexual satisfaction ($r = -0.47$, $p < 0.001$). This correlation remained significant ($B = -0.41$, df = 9, $p < 0.001$,) even when occupation ($B = 3.66$, $p = 0.01$), satisfaction with married life ($B = 15.34$, $p < 0.001$), and sexual desire ($B = 0.60$, $p < 0.001$) were adjusted as potential confounding factors. **Conclusions:** Internet dependency can cause a reduction in sexual desire and sexual satisfaction. Designing educational interventions in healthcare centers is recommended to manage the use of internet and to inform clients about the effects that internet dependency may have.

Keywords: *Internet, Iran, psychological dependency, sexual health*

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Introduction

Today, global internet usage has grown unprecedentedly. The characteristics of accessibility and mobility of this new medium have attracted a considerably large number of users worldwide.[1] According to the world statistics data on internet usage presented in 2019, China ranks first with 854 million users among other countries, and Iran with approximately 62 million users ranks 16, which shows an increase by 27.04% between 2000 and 2019.[2] Such growth in the number of users has caused the matter to become a potential problem.[1] Internet dependency is generally defined as an uncontrollable tendency toward the overuse of internet which can disturb an individual's daily life.[3] Dependency on the internet is one of the personal, and to some extent social harms of internet usage which is sometimes referred to as virtual addiction or Internet Addiction Disorder (IAD).[4]

Recent studies have revealed that there is a significant correlation between internet usage and familial dysfunctions.[4,5] A study carried out in Turkey showed that as dependency on internet increases, family functions such as communication, affective involvement, affective responsiveness, and general functions become unhealthy.[4] Additionally, dependency on the internet can weaken the familial foundations, and cause family conflict and sexual deviation.[6] Such harms can have negative effects on the survival of the family unit and can lead to its collapse.[7] A vital factor that can ensure the health of the family and ultimately the health of society is the couple's satisfaction with their sexual relations.[6]

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Appropriate sexual activity is the benchmark of physical and mental health in a healthy marriage as it helps couples live with competence through potential stresses as a married couple.[3] One of the main factors that can lead to dysfunctional sexual activities in married couples is problems surrounding the sexual drive. According to global statistics, reduced libido in women is the most common sexual complaint.[8] Another important component of a functional sexual life is sexual satisfaction. Sexual satisfaction is a suitable measure of mutual understanding between couples regarding their sexual needs and expectations.[9] Some studies have shown that spending long hours on the computer and internet can increase the risk of physical and mental dependency on digital devices as well as problems with emotional and social interactions. Internet has become a powerful substitute for emotional bonding between couples.[10]

The results of a recent study conducted in Iran suggest that there is a significantly negative correlation between duration of presence and activity in virtual environments and marital compatibility.[11] The results of a recent study also showed that the use of social networks has a significant effect on marital relationships and quality of life of married couples.[12]

A large portion of internet users consists of married clients.[13] Since the family is of great value in Iran due to religious considerations and sexual satisfaction is an important factor in maintaining the family unit,[7] determining the effects of internet dependency on the sexual desires, and sexual satisfaction of married clients is necessary. Most of the existing studies have been conducted on specific groups such as students or teachers;[14,15] however, these groups differ from the general population in terms of level of education and information. Available studies on the general public have focused on women,[16] and men have rarely been considered. Therefore, the aim of the present study was to assess the relationship between internet dependency and sexual desires and sexual satisfaction in married individuals in the city of Tabriz, Iran.

Materials and Methods

This cross-sectional study was carried out in the city of Tabriz located in the northwest of Iran, between February and August 2019. The sample size was determined using the primary data obtained from the study by Latifian *et al.* (α = 0.05, β = 0.20, r = 0.16), which was 312 participants.[17] Considering a nonresponse rate of 10%, the final sample size was calculated to be 326 subjects. The present study included a total of 326 participants (both male and female clients and in some cases spouse-couples), who were all covered by healthcare centers in Tabriz in 2019.

The sampling method used was proportionate stratified sampling method. Given the potential impact of family socioeconomic status on the use of internet, the researchers tried to select participants from all parts of the city with various socioeconomic levels. Therefore, a multistage sampling method was used based on the health complexes (20 health complexes) and the healthcare centers they covered (65 healthcare centers). The researcher randomly selected 1 of the healthcare centers covered by each health complex (20 healthcare centers) (cluster), and then, the sample was assigned to each cluster based on the number of the population coverage. Since women made up about 60% of the clients in the healthcare centers, in sampling, 60% of the sample size was allocated to women and about 40% to men.

The sample selection process was carried out based on the inclusion and exclusion criteria. The study inclusion criteria included willingness to participate in the study, literacy, access to internet, and the space and ability to use it. The exclusion criteria included confirmed sexual disorders based on the individual's statement, use of libido-boosting drugs, and chronic illnesses that affect sexual performance, such as any type of cancer, depression, or physical disabilities. In each healthcare center, the participants were selected using convenience sampling method from among the clients of different units of that healthcare center (physician, dentist, immunization, family healthcare unit, and environmental health unit) and were asked to fill out the questionnaires through an interview in a private room.

The data collection tools included a demographic characteristics checklist (20 items), the Internet Addiction Test (IAT; Young, 1988), the Index of Sexual Satisfaction (ISS; Hudson *et al.*, 1981), and the Hurlbert Index of Sexual Desire (HISD; Apt & Hurlbert, 1992). The demographic characteristics checklist consists of the variables of age, gender, education level, employment status, income, the daily amount of time spent using the internet, internet accessibility medium, the purpose of internet usage, different types of social networks used, married life satisfaction level, and the influence of social networking on the subjects' married life.

The IAT consists of 20 questions, which are scored based on a 5-point Likert scale. A total IAT score of 20-49, 50-79, and 80-100, respectively, represents non-dependency, at risk of dependency, and dependent on the internet. The reliability and validity of the IAT have been assessed and approved and its internal consistency was reported as 0.92.[18] A Persian version of this scale has also been used in the Islamic Republic of Iran and Nastizaei has confirmed its reliability with a Cronbach's alpha of 0.81.[19]

The HISD includes 25 questions scored based on a 5-point Likert scale. The total score range of 0-25, 25-50, and 50 or higher signifies a low sexual desire, medium sexual desire, and a high sexual desire, respectively. Hurlbert *et al.* have reported the test-retest reliability of the HISD at 86%.[20] In a study conducted

by Yousefi *et al*., the internal consistency coefficients (calculated by means of the Cronbach's alpha method) of all the questions of the Persian version the HISD were at 92%.[21]

The ISS consists of 25 questions scored based on a 7-point Likert scale ranging from 1 to 7. According to the scoring of the tool designers, a score of 25-67, 67-100, and 100 or higher signifies low sexual satisfaction, medium sexual satisfaction, and high sense of sexual satisfaction, respectively. The questionnaire designers have calculated the internal consistency of the scale using Cronbach's alpha method and reported it to be 0.91. Arefi and Mohsenzadeh reported a test-retest reliability of 0.93 for this questionnaire.[22] The reliability of the Persian version of the ISS was also assessed and approved using the split-half method.[23]

The face validity of the questionnaires was evaluated by 10 faculty members of Tabriz University of Medical Sciences, Iran. The questionnaires were also distributed among 30 randomly selected individuals (15 married women and 15 married men). The internal consistency of each of the questionnaires was then calculated using Cronbach's alpha method. The results that were produced were 0.94 for the IAT, 0.91 for the ISS, and 0.89 for the HISD.

The collected data were analyzed using descriptive statistics (mean, standard deviation, and frequency) and inferential statistics in SPSS software (version 16; SPSS Inc., Chicago, IL, USA). In order to determine the relationship between the studied variables, tests such as the Independent groups *t*-test, one-way analysis of variance (ANOVA), and the Pearson correlation coefficient test were used. Subsequently, the independent variables with a *p* value of less than 0.20 in the bivariate test, were entered into the multiple linear regression model.

Ethical considerations

The research was approved by the Ethics Committee of Tabriz University of Medical Sciences (Ethical code: IR.TBZMED.REC.1397.933). Written informed consent forms were obtained from all participants, and they were assured of anonymity, confidentiality, and the right to leave the research at any desired time.

Results

The participants of the present study consisted of 115 (35.28%) men and 211 (64.72%) women. The mean (SD) age of the participants was 34.14 (8.12) years. The majority of the participants (87.70%) were members of virtual social networks. The highest percentage of participants (31.60%) stated that their most important reason for using the internet was membership in social networks. Other demographic characteristics of the participants are presented in Table 1.

The mean (SD) IAT score of the participants was 37.32 (15.34) (range: 20-100). Moreover, 0.92% of the

participants had severe internet addiction, 19.33% were inclined to internet dependency, and 79.75% did not have internet dependency [Table 2]. The mean (SD) score of sexual desire was 59.28 (17.25) (range: 0-100), and the majority of the participants (71.48%) reported a high level of sexual desire [Table 2]. The mean (SD) score of sexual satisfaction was 104.42 (22.81) (range: 25-175), and 61.97% of participants had a high level of sexual satisfaction [Table 2].

The Pearson correlation coefficient test was used to determine the relationship between internet dependency, sexual desire, and sexual satisfaction [Table 3] and the results showed a significant negative relationship between internet dependency, and sexual desire (r = -0.19, *p* < 0.001) and satisfaction (r = -0.47, *p* < 0.001).

The Pearson correlation coefficient, independent *t*-test, and one-way ANOVA were used to determine significant differences or relationships between sexual satisfaction scores and sexual desire, internet dependency, and the measured demographic characteristics [Tables 4 and 5]. All the variables with *p* < 0.20 in univariate analysis were entered into the multiple linear regression model (job, satisfaction with married life, internet dependency, and sexual desire), and their relationship with sexual satisfaction, while controlling for the effect of other variables, was determined. The results of multiple linear regression analysis showed that, considering the confounding variables (job, satisfaction with married life, internet dependency, and sexual desire), the relationship between the sexual satisfaction score and internet dependency score was significant (β = -0.15, df = 9, *p* < 0.001), [Table 5].

Discussion

The present study revealed that about 1% of the participants were internet-dependent, which is consistent with a recent study in China that did not find severe internet dependency in a high percentage of the cases (0.96%).[24] Findings of the present study showed that all participants with severe internet dependency were men; this is similar to the findings of a recent study which showed that internet dependency among men is higher than women (1.8 times more than women).[18] However, findings of a recent study carried out in Turkey suggested that women are more dependent on the internet than men.[25] This difference can be due to the variable of usage in different societies, for example, in Iran most of the Internet users are men. It should also be noted that occupation can be an influential factor as men may spend more time working online because of their job, so they are at a higher risk of internet dependency.

In the current study, a significant relationship was found between the mean score of internet dependency and mean scores of sexual satisfaction and sexual desire,

Table 1: Frequency of demographic variables of the married men and women participating in the study

Demographic variable		n (%)	Demographic variable		n (%)	Demographic variable		n (%)
Gender	Male	115 (35.28)	Married life satisfaction	Completely Satisfied	156 (47.85)	Level of income	Unofficial	83 (25.46)
	Female	211 (64.72)		Satisfied	110 (33.74)		Low	206 (63.19)
Number of children	0	65 (19.93)		Relatively Satisfied	42 (12.88)		Sufficient	36 (11.04)
	1	135 (41.41)		Dissatisfied	15 (4.60)		High	1 (0.31)
	2	99 (30.36)		Completely Dissatisfied	3 (0.93)	Average daily internet usage (minute)	<60 min	111 (34)
	3 or More	27 (8.30)					60-120	80 (24.53)
Level education	Pre-diploma	51 (15.64)	Education level of spouses	Pre-diploma	64 (19.63)		120-180	46 (14.11)
	Diploma	104 (31.90)		Diploma	103 (31.59)		180-240	35 (10.73)
	Associate's degree	28 (8.58)		Associate's Degree	30 (9.20)		240-300	17 (5.21)
	Bachelor's degree	95 (29.14)		Bachelor's degree	86 (26.38)		300≤	37 (11.42)
	Master's degree	48 (14.74)		Master's degree	43 (13.19)	Reasons to use the internet	Social networks and interaction with others	151 (46.31)
Social networks' impact on married and sexual life	Very Strong	11 (3.39)	Internet access rate	Always	107 (32.82)		Receive news, information	88 (26.99)
	Strong	30 (9.20)		Often	101 (31.00)		Check emails, social networks and watch movies	25 (7.66)
	To Some Extent	77 (23.61)		Sometimes	92 (28.22)		Social networks, games and entertainment and news	41 (12.57)
	low	104 (31.90)		Rarely	25 (7.66)		Find more friends and check email	21 (6.47)
	None	104 (31.90)		Never	1 (0.30)	Age and years of employment mean (SD)	Age of participants (years)	34.14 (8.12)
Occupation	Unemployed	5 (1.53)	Spouse's job	Unemployed	5 (1.53)		Age of participants' spouses (year)	35.46 (8.54)
	Housewife	153 (46.93)		Housewife	88 (26.99)		Duration of marriage (year)	10.26 (7.73)
	Self-employed	59 (18.09)		Self-employed	130 (39.87)		Duration since the time of marriage (year)	10.23 (7.74)
	Employee	109 (33.45)		Employee	103 (31.61)		The age of the eldest child (year)	7.66 (7.54)

Table 2: Frequency, and mean and standard deviations of the internet dependency, sexual satisfaction, and sexual desire scores of clients referring to health centers in Tabriz

Variables and their levels		Total participants			Men			Women		
		Observed range	Mean (SD)	n (%)	Observed score range	Mean (SD)	n (%)	Observed score range	Mean (SD)	n (%)
Internet dependency Levels	Non-dependent on internet	20-91	37.32 (15.34)	260 (79.75)	20-91	42.89 (17.20)	81 (70.39)	20-76	34.20 (13.33)	179 (84.83)
	Incline to Dependency			63 (19.33)			31 (27.01)			32 (15.17)
	Dependent on Internet			3 (0.92)			3 (2.60)			0
Levels of sexual Satisfaction	Low sexual satisfaction	25-141	104.42 (22.81)	20 (6.13)	25-138	102.61 (24.30)	7 (6.08)	41-141	105.31 (21.94)	13 (6.16)
	Moderate sexual satisfaction			104 (31.90)			40 (34.78)			64 (30.33)
	High sexual satisfaction			201 (61.97)			67 (59.14)			134 (63.51)
Levels of sexual desire	Low sense of cohesion	3-96	59.28 (17.25)	17 (5.21)	3-96	63.48 (17.93)	6 (5.21)	10-94	56.89 (16.42)	11 (5.21)
	Moderate sense of cohesion			76 (23.31)			18 (15.65)			58 (27.48)
	High sense of cohesion			233 (71.48)			91 (79.14)			142 (67.31)

Table 3: Relationship between internet dependency, sexual desire, and sexual satisfaction scores in married men and women referring to health centers in Tabriz

Variable	Internet addiction score	Sexual desire score	Sexual satisfaction score
Internet addiction score	-	$r=-0.19$ $p<0.001$	$r=-0.47$ $p<0.001$
Sexual desire score	$r=-0.19$ $p<0.001$	-	$r=-0.59$ $p<0.001$
Sexual satisfaction score	$r=-0.47$ $p<0.001$	$r=-0.59$ $p<0.001$	-

which is in line with the findings of a recent study by Scimeca *et al*., who reported a direct relationship between severe dependency on the internet and low sexual satisfaction.[26] Regarding the relationship between sexual desire and internet dependency, some studies have argued that unsatisfied sexual desires may be related to internet dependency,[27] or use of cybersex.[28]

In the final model, the variables that had a significant relationship with sexual satisfaction included internet dependency score, sexual desire score, overall satisfaction with married life and occupation. In the present study, as the mean score of internet dependency increased, sexual satisfaction decreased. In a recent study, it was discussed that active engagement in social networking can cause aloofness in husband-wife interactions; this may be due to the resulting negligence toward marital, emotional, and sexual responsiveness, which can be the basis for marital disputes.[27] It is reasonable to assume that such a phenomenon is a two-way communication between the variables for which further in-depth study is advised. Sexual desire plays a crucial role in a couple's relationship and neglecting it can lead to marital discord and dissatisfaction.[8]

Occupation was another variable which had a significant relationship with sexual satisfaction. Findings of present study showed that government employees had higher sexual satisfaction. The results of a recent study suggested that work schedule and occupational stressors had a a significant relationship with sexual satisfaction.[29] It can be stated that government employees have regular work schedule and more job stability, which can cause higher sexual satisfaction. Satisfaction with married life was another factor with a significant relationship with sexual satisfaction. The findings of a recent study in Iran showed that sexual satisfaction increased with increase in marital satisfaction.[30] This finding was also supported by the findings of Rahmani *et al*.[31]

Selecting subjects from all parts of Tabriz through multistage sampling method can be the strength of the present study. A limitation of the present study was that we did not use a specific questionnaire to assess the marital satisfaction of couples. Moreover, we selected clients

Table 4: The relationship between sexual satisfaction score and demographic and social characteristics of clients referring to health centers in Tabriz

Demographic and organizational variables		Sexual satisfaction Mean (SD)	Statistical test	t or F/df	p	Scheffe's post-hoc test
Gender	Male	102.61 (24.30)	Independent t-test	$t=-1.04$, df=324	0.30	-
	Female	105.31 (21.91)				
Number of children	0	105.61 (26.33)	ANOVA	$F=0.82$, df (BG)*=3, df (WG)**=322	0.97	-
	1	104 (21.31)				
	2	104.10 (23.25)				
	3 or More	104.42 (19.81)				
Education level	Pre-diploma	99.80 (25.22)	ANOVA	$F=0.76$, df (BG)=4, df (WG)=321	0.55	-
	Diploma	105.21 (22.53)				
	Associate's degree	103.91 (20.32)				
	Bachelor's degree	104.51 (23.72)				
	Master's degree	107.43 (20.73)				
Social networks' impact on married and sexual life	Very strong	88.72 (20.15)	ANOVA	$F=11.62$, df (BG)=4, df (WG)=321	0.14	-
	Strong	86.94 (28.00)				
	To some extent	99.73 (20.42)				
	Low	106 (19.82)				
	None	112.91 (21.82)				
Occupation	Unemployed	80.82 (10)	ANOVA	$F=4.60$, df (BG)=3, df (WG)=322	0.004	<0.001
	Housewife	106.75 (21.54)				
	Self-employed	97.24 (24.91)				
	Employee	106 (22.62)				
Sexual desire score	-		Pearson correlation test	$r=0.48$	0.001	-

Demographic and organizational variables		Mean (SD)	Statistical test	t or F/df	p	Scheffe's post-hoc test
Married Life satisfaction	Completely satisfied	113.12 (19.31)	ANOVA	$F=33.9$, df (BG)=4, df (WG)=321	0.05	-
	Satisfied	103.63 (18.45)				
	Relatively Satisfied	86.52 (26.16)				
	Dissatisfied	75.14 (19.21)				
	Completely Dissatisfied					
Education level of spouses	Pre-diploma	102.16 (26.32)	ANOVA	$F=0.31$, df (BG)=4, df (WG)=321	0.871	-
	Diploma	104.97 (21.71)				
	Associate's Degree	107.32 (17.10)				
	Bachelor's degree	104.72 (22.81)				
	Master's degree	103.72 (24.00)				
Level of income	Unofficial	101.82 (22.11)	ANOVA	$F=0.69$, df (BG)=2, df (WG)=323	0.50	-
	Low	105.31 (22.79)				
	Sufficient	105.11 (25.22)				
	High	105.11 (25.22)				
Spouse's job	Unemployed	99.84 (10.71)				
	Housewife	103.22 (2.71)				
	Self-employed	104.73 (22.12)				
	Employee	105.12 (24.41)				
Internet addiction score			Pearson correlation test	$r=0.59$	0.001	-

*Between groups, **Within groups

Table 5: Results of the final multiple linear regression analysis for the variables associated with sexual satisfaction of clients referring to health centers in Tabriz

Factors affecting Sexual Satisfaction*		β Coefficient	Standardized β Coefficient	Standard error (SE)	t	p
	Constant	79.18	-	6.63	11.94	<0.001
Satisfaction of their marriage	Completely satisfied	-	-	-	-	-
	Satisfied	-4.95	-0.10	1.96	-2.53	0.012
	Relatively satisfied	-15.34	-0.22	2.79	-5.50	<0.001
	Dissatisfied	-13.44	-0.13	4.25	-3.16	0.020
	Completely dissatisfied	-13.44	-0.13	4.25	-3.16	0.020
Occupation	Unemployed	-	-	-	-	-
	Housewife	1.78		6.02	1.02	0.034
	Self-employed	2.11		6.43	0.96	0.042
	Employed	3.66		5.98	1.27	0.018
Internet addiction score	-		-0.41	-0.27	0.06	-6.29	<0.001
Sexual desire score	-		0.60	0.46	0.05	11.38	<0.001

*df Model=8, df Residual=317

of health care centers through convenience sampling method; this is considered as a weakness of the study and it is suggested that it be addressed in future studies. In a recent study conducted in Iran, approximately half of the participants stated that they use the internet for access to inappropriate content such as pornography.[3] Findings of a recent study have shown a negative relationship between watching pornography and marital satisfaction.[32] In the present study, the usage of the internet specifically for pornography was not discussed and it can be one of its limitations. Another limitation was the personal and sensitive questions that at times caused the participant to either refuse to answer or to quit the study. Another limitation of this study was that we could not investigate many of the factors that can affect couples' sexual satisfaction and sexual desire.

Conclusion

The findings of this study showed that there is a significant relationship between internet dependency, and sexual desire and satisfaction. Given the importance of sexual satisfaction as a key factor in the health of families, it is suggested that educational interventions be designed and implemented in healthcare centers in order to manage the use of internet and to inform clients about the effects that internet dependency can have on the family foundation. Furthermore, internet dependency screening among clients of healthcare centers is suggested.

Conflicts of interest

There are no conflicts of interest.

References

1. Kumar M, Mondal A. A study on Internet addiction and its relation to psychopathology and self-esteem among college students. Ind. *Psychiatry* J 2018;27:61-6.
2. Top 20 Countries With the Highest Number of Internet Dec 31, 2019. Available from: http://www.internetworldstats.com.
3. Norouzi L, Arbabi A, Jamali M. The effect of internet usage on relations between members of the Iran Family in Tehran City. World Fam Med J 2017;99:1-5. [Persion].
4. Emre ME. The relationship between computer-internet addiction and family functions. International Educational Technology Conference, April, 2010.
5. Eichenberg C, Huss J, Küsel C. From online dating to online divorce: An overview of couple and family relationships shaped through digital media. Contemp Fam Ther 2017;39:249-60.
6. Wu NS, Lu Y, Sterling S, Weisner C. Family environment factors and substance abuse severity in an HMO adolescent treatment population. Clin Pediatr (Phila) 2004;43:323-37.
7. Khosh Safa H, Kafashi M. Investigating the relationship between virtual social networks and family values. Family Sociology 2015;6:173-200.
8. Arnow B, Millheiser L, Garrett A, Polan ML, Glover G, Hill K, *et al*. Women with hypoactive sexual desire disorder compared to normal females: A functional magnetic resonance imaging study. Neuroscience 2009;158:484-502.
9. Ashdown B, Hackathorn J, Clark EM. In and out of the bedroom: Sexual satisfaction in the marital relationship. Int Soc Sci J 2011;2:40-57.
10. Luciana RP. One minute more: Adolescent addiction for virtual world. Procedia Soc Behav Sci 2010;2:3706-10.
11. Ebrahimpour D, Nakhshiipour E. Relationship between presence and activity in cyberspace with marital adjustment among married men and women referred to counseling centers in Urmia. Woman Fam Stud 2017;11:133-53. [Persion].
12. Irani ZB, Rezaei T. The effects of social networking on marital relationships and couples quality of life (Case study: Couples of social networking members in Shiraz). JSSHR 2010;5:15-21.

13. Abdollahyan H, Hassani H. Social media and challenges to iranian family: A study on facebook membership and its impact on family privacy. Iran J Soc Problm. 2017;7:203-28. [Persion].

14. Seifollahzadeh Kojanagh M, Nemati S. The relationship between mindfulness and internet addiction in predicting teachers' marital satisfaction. 2nd National Conference on Social Hurts Ardabil, 2019. [Persion].

15. Rajaei M, Heidari H. Relationship between internet addiction and marital satisfaction and disaffection in married students of Islamic Azad University, Khomeini Shahr Branch in 2015. Community Health Journal 2017;11:69-77.

16. Alimoradi Z, Lin C-Y, Imani V, Griffiths MD, Pakpour AH. Social media addiction and sexual dysfunction among Iranian women: The mediating role of intimacy and social support. *J Behav Addict* 2019;8:318-25.

17. Latifian M, Arshi M, Eghlima M. The relationship between internet addiction and emotional divorce in married females in Tehran in 2016. JRUMS 2017;16:517-28. [Persion].

18. Alavi S, Maracy M, Jannatifard F, Eslami M, Haghighi M. A survey of relationship between psychiatric symptoms and internet addiction in students of Isfahan University. Avicenna J Clin Med 2010;17:57-65. [Persion].

19. Nastizaei N. The relationship between general health and internet addiction. J Tabib e Shargh 2009;12:57-63.

20. Hurlbert DF, Apt C, Rabehl SM. Key variables to understanding female sexual satisfaction: An examination of women in nondistressed marriages. *J Sex Marital* Ther 1992;18:104-14.

21. Yousefi N, Farsani K, Shakiba A, Hemmati S, Nabavi Hesar J. Halbert index of sexual desire (HISD) questionnaire validation. Sci J Clin Psychol Personal 2014;2:107-18. [persion].

22. Arefi M, Mohsenzadeh F. Prediction of marital satisfaction based on communication and sexual intimacy. J Fam Couns Psychother 2012;12:19-37. [Persion].

23. Rahmani A, Allahgholi L. The role of age difference in marital and sexual satisfaction. Aflak J 2010;5:15-21.

24. Xin M, Xing J, Pengfei W, Houru L, Mengcheng W, Hong Z. Online activities, prevalence of Internet addiction and risk factors related to family and school among adolescents in China. Addict Behav Rep 2018;7:14-28.

25. Korkmaz Ö, Sahin C, Usta E. The relationship between interaction and audience anxiety levels and internet addiction of adults. Contemp Educ Technol 2011;2:200-12.

26. Scimeca G, Muscatello M, Chisari C, Crucitti M, Pandolfo G, Zoccali R, *et al*. The relationship between sexual behavior and internet addiction severity in a sample of heterosexual university students from italy. *J Neuropsychiatry* Clin Neurosci 2017;14:49-58.

27. Daneback K, Sevcikova A, Månsson S-A, Ross MW. Outcomes of using the internet for sexual purposes: Fulfilment of sexual desires. Sexual Health 2013;10:26-31.

28. Brahim FB, Rothen S, Bianchi-Demicheli F, Courtois R, Khazaal Y. Contribution of sexual desire and motives to the compulsive use of cybersex. *J Behav Addict* 2019;8:442-50.

29. Mokarami H, Toderi S, Rahimi Pordanjani T, Taban E. Role of psychosocial job stressors on sexual function of male nurses: The mediator role of work ability. Am J Mens Health 2018;6:1908-15.

30. Ziaee T, Jannati Y, Mobasheri E, Taghavi T, Abdollahi H, Modanloo M, *et al*. The relationship between marital and sexual satisfaction among married women employees at Golestan University of Medical Sciences, Iran J Psychiatry Behav Sci 2014;8:44-51.

31. Rahmani A, Alahgholi L, Merghati Khuee E. How does sexual satisfaction relate to marital satisfaction among Iranians? Int J Gynaecol Obstet 2009;107:558-69.

32. Daspe MÈ, Vaillancourt-Morel MP, Lussier Y, Sabourin S, Ferron A. When pornography use feels out of control: The moderation effect of relationship and sexual satisfaction. J Sex Marital Ther 2018;44:343-55.