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Evaluating the Validity and Reliability of the Persian Version of the Cyber-Relationship Motives Questionnaire

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A B S T R A C T

Objective: This study aimed to evaluate the validity and reliability of the Persian version of the Cyber-Relationship Motives (CRM) questionnaire among Iranian university students.

Methods and Materials: A total of 475 students from the University of Kurdistan (70.5% female; mean age = 22, SD = 3) completed the CRM and the Internet Affective Relationships Inventory (IARI). The CRM was translated into Persian using a forward–backward translation method, reviewed by expert committees, and refined through iterative revisions. Data collection employed paper-based surveys, and 100 additional participants with internet access but no preference for online social interactions were included for discriminant validity testing. Structural validity was examined via confirmatory factor analysis (CFA) using AMOS-25, with model fit assessed through indices including CMIN/df, AGFI, GFI, CFI, PNFI, TLI, and RMSEA. Internal consistency was evaluated using Cronbach's alpha, test–retest reliability through Pearson correlation, and convergent and concurrent validity via correlations with IARI.

Findings: CFA confirmed the nine-factor structure of the CRM, showing acceptable fit indices (CMIN/df = 2.741; CFI = 0.92; TLI = 0.91; RMSEA = 0.061). Cronbach's alpha coefficients ranged from 0.47 to 0.97 across subscales, with the overall scale $\alpha = 0.92$, indicating good internal consistency. Test–retest reliability over one month ranged from $r = 0.71$ to $r = 0.92$ ($p < 0.01$). Significant positive correlations were found between CRM subscales and IARI dimensions, supporting convergent validity. Discriminant validity testing revealed that participants preferring online interactions scored significantly higher on adventure, escape to a virtual world, and romance dimensions ($p < 0.01$). Gender differences emerged in the romance dimension, with men scoring higher than women, particularly in the "finding a sexual partner" subscale.

Conclusion: The Persian version of the CRM questionnaire demonstrated robust psychometric properties, confirming its validity and reliability for assessing

motives behind cyber-relationships in Iranian contexts. Its stable factor structure, strong internal consistency, and meaningful correlations with related constructs support its applicability for future research and practical assessments in both academic and counseling settings.

Keywords: *Cyber-Relationship Motives, Reliability, Validity, Confirmatory factor analysis*

1. Introduction

The advent of the Internet and social media has streamlined communication and transformed the process of establishing and delineating relationships (Aichner et al., 2021; Bryant & Sheldon, 2017). In this modern era, the Internet is one of the most popular, widely used, and rapidly expanding tools for developing interpersonal relationships (Katz & Rice, 2009; Wang & Chang, 2010). For instance, in 2017, nearly 90% of young adults in Germany used social media for private communication (Schredl & Göritz, 2019). Social Network Sites (SNSs) are experiencing an annual increase in popularity, with more than 3 billion users worldwide. (Masciantonio & Bourguignon, 2023).

Therefore, since more and more people turn to the internet and cell phones to communicate and make friends, researchers are increasingly interested in exploring the reasons behind this trend (Bryant & Sheldon, 2017). Cyber-Relationship Motivations are the terms used to describe the factors that drive individuals to seek out new relationships via the internet. (Wang & Chang, 2010).

Rubin et al. (1988) posit that individuals engage in communication for a multitude of reasons, such as enjoyment, affection, social integration, solitude, relaxation, and authority (Rubin et al., 1988). These motivations have contributed to the emergence and evolution of online interpersonal communication. On the contrary, the formation of online relationships is markedly dissimilar to offline relationships on account of the internet's unique attributes (Bonebrake, 2002). For example, physical attractiveness has a vital role in developing offline relationships, but not in cyber relationships. Online interactions diminish the importance of physical attributes in determining attractiveness and instead prioritize factors like emotional closeness, compatibility, resemblance, and the sharing of personal information. This fosters intimate connections based on emotional intimacy rather than purely sexual attraction.

The motives for using social networks have been extensively explored across various studies. These studies have identified a range of reasons behind individuals' engagement with social platforms. Among these motives are dating, social interaction, forming new friendships, academic pursuits, monitoring others, seeking social recognition, entertainment, information seeking, and self-expression (Pertegal et al., 2019). Additionally, motivations such as relaxation, sharing information, and convenience utility have been highlighted (Whiting & Williams, 2013). Krasnova et al. (2017) further emphasized motives like relationship building, personal growth, acquiring information, and seeking entertainment (Krasnova et al., 2017). Moreover, Lawson & Leck (2006) identified companionship, seeking comfort during life crises, exerting control over self-presentation, freedom from stereotypical roles, seeking adventure, and indulging in romantic fantasies as significant motivators for social media usage (Lawson & Leck, 2006).

In a separate study focusing specifically on Instagram, Sheldon & Bryant (2016) discovered four distinct motives: surveillance/knowledge about others, documentation, coolness, and creativity (Sheldon & Bryant, 2016). These findings underscore the multifaceted nature of individuals' motivations behind their engagement with social networking platforms, illustrating the diverse array of needs and desires that these platforms fulfill in users' lives.

Furthermore, the Uses and gratifications theory (Katz et al., 1974) suggests that individual differences influence motivations for interacting with various media. For instance, extroversion, conscientiousness, and agreeableness have positive correlations with various social media use, whereas receptiveness and emotional stability are negative predictors of using these networks (Gil de Zúñiga et al., 2017). Furthermore, Andrews et al. (2020) found a bidirectional link between social media use and neuroticism (Andrews et al., 2020). Individuals with higher social anxiety prefer computer-mediated communication to face-to-face contact (Punyanunt-Carter et al., 2018).

Moreover, a motive for depressed people to immerse in an exciting online world can be escaping the depression symptoms and negative mood (Brailovskaia & Margraf, 2020). As was shown in research by Lin et al. (2017), negative emotions have a positive relationship with the frequency of using social networks (Lin et al., 2017). Teenagers with lower self-confidence and weaker social support are more motivated to develop online friendships

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(Mesch & Talmud, 2006). Individuals who are more content with their lives and more at ease with interpersonal interactions prefer to search for information on the Internet. In contrast, those who are dissatisfied with their lives utilize the Internet to communicate and pass the time. Aside from the aforementioned, when considering the gender of the internet user, women were more likely than males to use online dating sites for social purposes but less likely to use these sites to locate sexual partners.

Several studies have shown that online relationships have become the most popular activity on the Internet; nevertheless, few academics have attempted to construct a complete scale to explain the motives for online relationships. The lack of a comprehensive scale to analyze the motivations underlying online relationships may impede academics' ability to conduct advanced study on online interactions.

The motivations of individuals for utilizing the proximity-based dating application Tinder®, as well as for utilizing the Internet as a whole, can be assessed using the Tinder Motives Scale (TMS), which was developed and validated by Timmermans & De Caluwé (2017) (Timmermans & De Caluwé, 2017). The questionnaire concerning motives for Instagram use, developed by Huang & Su (2018), examines specifically the motives of people on the social network Instagram, and the Online Gaming Motivations Scale (Yee et al., 2012) examines people's motivation for playing online games (Huang & Su, 2018; Yee et al., 2012).

Various scales are available to investigate people's motivations for using social networks, including The Social Network Site Use Motives Scale (SUMS) developed and validated by Shin and Lim (2018) in South Korea (Shin & Lim, 2018); Motivations for Social Media Use Scale (MSMU) created by Rodgers et al. (2021) (Rodgers et al., 2021); Social Networking Usage Questionnaire (Gupta & Bashir, 2018); Motivations for Using Social Media (Al-Menayes, 2015), the Scale of Motives for Using Social Networking Sites SMU-SNS for adolescents and youths (Pertegal et al., 2019); the Motivation Scale for Using Social Networking Sites (Masciantonio & Bourguignon, 2023) to investigate people's motivations for using different social network sites, which may encompass a wider range of relations; the Interpersonal Communication Motives (Rubin et al., 1988) which examines communication motives in general, not just in the virtual world; the Social Media Disorder Scale (SMDS) (Van Den Eijnden et al., 2018) and the Social Media Disorder Scale for Parents (SMDS-P) (Austermann et al., 2021) which address the problematic use of social media.

Wang and Chang (2010) developed the Cyber-Relationship Motives (CRM) scale, which consists of 27 items and 9 subscales (Wang & Chang, 2010). The first-order factors are anonymity, the opportunity to meet new people, easy to communicate, curiosity, emotional support, social compensation, and being away from the real world. The second-order factors are adventure, escape to a virtual world, and romance.

Despite the widespread social network use and the increasing frequency of relationships in the virtual world, there is still no tool to investigate the motivation of virtual relationships in Iran. The CRM questionnaire designed for this purpose has not yet been evaluated in Iran. Accordingly, to make this scale be used in a different cultural context, it is necessary to examine its validity and reliability in the Iranian sample.

2. Methods and Materials

2.1. Study Design and Participants

The participants comprised all male and female students of the University of Kurdistan who consented to participate. 700 paper questionnaires were distributed on the University of Kurdistan campus to willing participants over a six-week period in 2023. 475 complete questionnaires were collected, with 335 from female students (70.5%) and 137 from male students (28.8%). Additionally, 440 participants (92.6%) were undergraduates, 29 (6.1%) were master's students, and 6 (1.3%) were doctoral students. The mean age was 22 years (SD = 3). On average, participants spent 16.2 hours per week on the Internet and 2.5 hours per week engaging in online relationships with friends. The remaining 100 additional respondents are individuals who have internet access but do not prefer virtual spaces and the internet for social interactions. Data from this group were utilized to examine the discriminant validity of the CRM questionnaire.

The CRM questionnaire underwent an initial Farsi translation. The back-translation method (Maneesriwongul & Dixon, 2004) was used to translate CRM. A brief description of translation stages is presented in Figure 1. In the first stage, CRM was translated from English to Farsi by several bilingual psychologists, then, university professors in the fields of psychometrics, psychology, and English literature merged the translated versions, and at this stage, the Persian version was given to two translators who had no access to the original version to translate it into English. In

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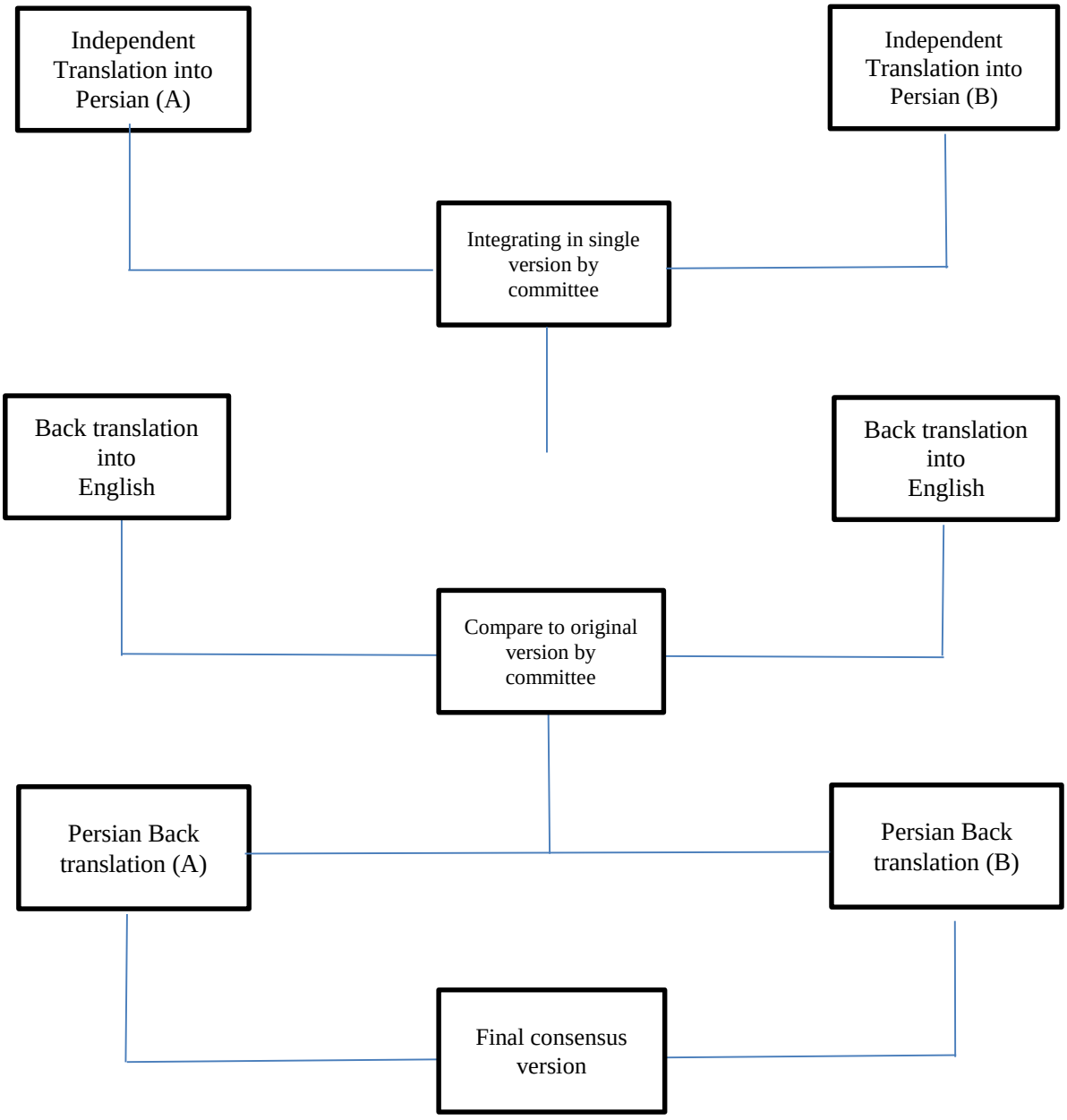
the next stage, the English drafts of CRM were retranslated and compared by a committee to resolve inconsistencies. After the first evaluation, respecting the lack of access to the original version and the initial translation, the English version of the previous stage was given to two translators to be translated into Farsi again. Moreover, the translation was reviewed at every stage and draft, and a final, approved draft was created. The compatibility of the Persian CRM draft with the original English version was verified in this last step. An overview of the steps in the backward translation method is provided in Figure 1.

Figure 1

Summarized forward-backward translation method in the present study. Translators A and B were two native Persian speakers. The bilingual speakers (Persian-English) who performed the back-translation were blinded to the original questionnaires. The committee was composed of several experts (assistant professor and higher) in English literature, Psychometrics and Psychology and the authors of the study



After issuing a request for cooperation at the university level, a roster of individuals who were willing to participate was compiled. The participants were personally presented with and completed paper versions of the questionnaires for

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a total of 500 individuals who indicated interest in taking part. The data were subsequently analyzed utilizing SPSS-27 and Amos-25 software.

2.2. Measures

Internet Affective Relationship Inventory (IARI): This questionnaire developed and validated by Barghi Irani and Aziz (2015) has 28 items and five subscales. The way of scoring the statements is based on the Likert scale from *completely disagree* (1) to *completely agree* (5). The components of this questionnaire were: *Confidence*, *Honesty*, *Enjoy*, *Tending to sex*, and *Virtual relationship preference*, where the Cronbach's alpha coefficient for the whole scale was 0.9 and for the subscales of confidence 0.73, honesty 0.70, enjoy 0.71, tending to sex 0.79, and virtual relationship preference 0.84 were reported by the developers.

Cyber-Relationship Motives (CRM) Questionnaire: This questionnaire developed and validated by Cheng and Wang (2010) has 27 items, 9 subscales, and three dimensions (Wang & Chang, 2010). Scoring the statements is based on the 5-point Likert spectrum of strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5). The dimensions of this questionnaire include adventure, escape to the virtual world, and finding romance. The dimension of adventure includes the subscales of anonymity, opportunity to meet new people, easy to communicate, curiosity, and emotional support, and the dimension of escape to the virtual world includes two subscales of social compensation and away from the real world, and finding romance includes two subscales of love and finding a sexual partner. The Cronbach's alpha coefficients for the subscales were reported as follows: anonymity: 0.72; opportunity to meet new people: 0.58; easy to communicate: 0.67; curiosity: 0.59; emotional support: 0.70; social compensation: 0.81; away from the real world: 0.66; love: 0.67; and finding a sexual partner: 0.90.

The questionnaire was initially translated, and subsequently, the original and Persian versions of CRM were presented to a group of specialists who held the academic rank of assistant professor or higher in the fields of English literature, psychometrics, and psychology. Finally, their suggested corrections were implemented.

2.3. Data analysis

Confirmatory factor analysis (CFA) was used with IBM AMOS software version 22 to validate the CRM factor structure. The model fit of the Adjusted goodness of fit index (AGFI) and the Tucker-Lewis index (TLI) were used for the CFA. The chi-square ratio/degrees of freedom (CMIN/df), comparative fit index (CFI), root mean square error of approximation (RMSEA), parsimony-normed fit index (PNFI), and goodness-of-fit index (GFI) were used. Fit indices were suggested to have the following cutoff values: PNFI > 0.50; CFI, GFI, TLI, and AGFI ≥ 0.90; RMSEA < 0.08 (Hooper et al., 2008); CMIN/df ranging from 2 to 5(Arbuckle & Wothke, 2006).

A Pearson correlation coefficient analysis between the CRM and IARI scores was done to assess the convergent validity of the two measures. Internal consistency reliability was evaluated using Cronbach's alpha coefficients; values greater than 0.45 indicated adequate and satisfactory reliability (Taber, 2018). Retest reliability was assessed using Pearson correlation coefficients.

3. Findings and Results

To determine the internal consistency of CRM with its individual components, the correlation between the subscales and the overall score were computed and are displayed in Table 1. The data presented in Table 1 indicates a significant correlation between each component of CRM and the overall score of this scale. In general, the correlation coefficients presented in Table 1 indicate that the components have strong internal relationships. The factorial structure of the scale was ascertained via CFA, and subsequently, a nine-factor model was fitted.

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Table 1

Correlations among the Nine Cyber-Relationship Motive Factors & Descriptive characteristics

	F1	F2	F3	F4	F5	F6	F7	F8	F9	Total
F1	1									
F2	0.55**	1								
F3	0.42**	0.52**	1							
F4	0.40**	0.45**	0.52**	1						
F5	0.48**	0.55**	0.53**	0.55**	1					
F6	0.25**	0.22**	0.26**	0.38**	0.39**	1				
F7	0.40**	0.34**	0.39**	0.46**	0.54**	0.46**	1			
F8	0.32**	0.32**	0.32**	0.42**	0.45**	0.41**	0.44**	1		
F9	0.26**	0.19**	0.33**	0.35**	0.25**	0.30**	0.31**	0.48**	1	
Total	0.66**	0.67**	0.71**	0.74**	0.79**	0.58**	0.72**	0.74**	0.56**	1
Mean	8.02	9.54	8.83	7.26	7.57	5.36	8.16	5.91	4.72	65.27
Std. Deviation	2.68	2.84	3.04	2.86	3.1	2.58	3.31	3.53	2.88	18.14
Skewness	0.02	-0.49	-0.08	0.27	0.28	1.20	0.12	3.51	1.92	0.12
Kurtosis	-0.46	-0.28	-0.67	-0.54	-0.53	1.32	-0.93	31	3.07	
Minimum	3	3	3	3	3	3	3	3	3	27
Maximum	15	15	15	15	15	15	15	15	15	134

Note. ** p < 0.01, Anonymity (F1); Opportunity to meet new people (F2); Easy to communicate (F3); Curiosity(F4); Emotional support (F5); Social compensation (F6); Away from the real world (F7); Love (F8); Sexual partners (F9).

As shown in Table 2, the findings show the optimal fit of the model. CMIN/df was obtained between 2 and 5, which is in the optimal range. Acceptable values for CFI and TLI are above 0.90, and AGFI value was 0.86 and the GFI value was 0.89. The acceptable value for PNFI is higher than 0.50, which was 0.76 in this study and is therefore considered optimal.

Table 2

Fittings Indexes of CFA model

CMIN	DF	CMIN/DF	AGFI	GFI	CFI	PNFI	TLI	RMSEA
825.126	301	2.741	.86	.89	.92	.76	.91	.061

RMSEA, was equal to 0.061, which is desirable because the optimal value for this index is less than 0.08 (Table 2). Standardized and non-standard coefficients and critical ratios are shown in Table 3.

After one month, retesting was done among 40 participants. The Cronbach's alpha coefficient and test-retest reliability of the subscales were as follows: Anonymity: (α=0.54; r= 0.71, sig <0.01), Opportunity to meet new people: (α=0.78; r=0.84, sig <0.01), Easy to communicate: (α=0.81; r=0.76, sig <0.01), Curiosity: (α=0.47; r=0.76, sig <0.01), Emotional support: (α=0.86; r=0.85, sig <0.01), Social compensation: (α=0.87; r=0.91, sig <0.01), Away from the real world: (α=0.90, r=0.88, sig <0.01), Love: (α= 0.97; r=0.92, sig <0.01), Finding a sexual partner: (α=0.89; r= 0.77, sig <0.01), and for the Adventure dimension: (α= 0.91; r= 0.77, sig <0.01), Escape to a virtual world dimension: (α= 0.89, r= 0.90, sig <0.01), and Finding romance dimension: (α= 0.91; r= 0.88, sig <0.01).

Furthermore, the correlation coefficient of each item with the total score of the factor attributed to the same item was higher than 0.47 in all cases of the scale. These coefficients and obtained values indicated the internal consistency and acceptable validity of this scale.

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Table 3

Standardized and Unstandardized coefficients

Factors	Items	Unstandardized Weights	standardized Weights	S.E.	C.R.	P
Adventure	F1	.436	0.784	.052	8.440	***
	F2	.458	0.771	.047	9.785	***
	F3	.777	0.751	.055	14.146	***
	F4	.609	0.855	.051	11.883	***
	F5	.897	0.922	.049	18.246	***
Escape to a virtual world	F6	.551	0.627	.050	10.934	***
	F7	.680	0.832	.056	12.056	***
Finding romance	F8	.827	0.936	.060	13.759	***
	F9	.447	0.558	.044	10.129	***
F1	C2	1.363	0.586	.173	7.891	***
	C3	1.183	0.530	.158	7.502	***
	C1	1.000	0.467			
F3	C7	1.000	0.812			
	C8	.998	0.853	.055	18.046	***
	C9	.658	0.625	.049	13.552	***
F4	C10	1.000	0.625			
	C11	.855	0.550	.077	11.043	***
	C12	1.471	0.824	.121	12.138	***
F6	C16	1.000	0.755			
	C17	.894	0.802	.073	12.236	***
	C18	.870	0.868	.063	13.805	***
F7	C19	1.000	0.669			
	C20	1.383	0.845	.093	14.801	***
	C21	1.298	0.814	.089	14.559	***
F8	C22	1.000	0.746			
	C23	1.180	0.913	.061	19.449	***
	C24	1.026	0.839	.056	18.370	***
F9	C25	1.000	0.770			
	C26	1.265	0.948	.058	21.769	***
	C27	1.144	0.870	.055	20.731	***
F5	C13	1.000	0.832			
	C14	.898	0.736	.056	16.087	***
	C15	.923	0.744	.057	16.252	***
F2	C4	1.000	0.519			
	C5	1.577	0.771	.151	10.460	***
	C6	1.540	0.779	.147	10.468	***

Note. *** $p < 0.001$, Anonymity (F1); Opportunity to meet new people (F2); Easy to communicate (F3); Curiosity(F4); Emotional support (F5); Social compensation (F6); Away from the real world (F7); Love (F8); Sexual partners (F9)

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In order to assess the convergent and concurrent validity of CRM, its correlation with IARI was assessed (Table 4). In order to assess discriminant validity, the scores of individuals who engage in social interactions using online environments were compared to those who do not have a preference for online spaces in forming relationships. The multivariate analysis of variance reveals significant differences between the two mentioned groups in the dimensions of the CRM questionnaire. Wilks' lambda was found to be 0.58, with $F(3, 571) = 32.71$, sig < 0.01. Pairwise comparisons between the two groups, using Bonferroni correction, revealed higher scores for individuals utilizing virtual spaces for relationships in Adventure (mean difference = 11.49, sig < 0.01), escape to a virtual world (mean difference = 3.87, sig < 0.01), and romance (mean difference = 2.96, sig < 0.01). Thus, individuals who use virtual spaces for relationships obtained higher scores.

Additionally, in the CRM scale, the mean score of women and men in the dimension of adventure for both was equal to 41.3, and in the dimension of escape to the virtual world, the mean scores were 13.5 for women and 13.8 for men. The mean scores for the dimension of romance were 9.6 for women and 13 for men. Due to the difference in the scores of women and men in the romance dimension, we compared the scores of both genders in the subscales of this dimension and found that the mean score of women in the love subscale was 5.5 while this value for men was 6.6 and the mean scores of women and men in the subscale of finding a sexual partner were equal to 4 and 6.4, respectively.

Table 4

Correlations of Cyber-Relationship Motives and IARI

Cyber-Relationship Motives		IARI
Adventure	Anonymity	0.48**
	Opportunity to meet new people	0.51**
	Easy to communicate	0.48**
	Emotional support	0.63**
Escape to a virtual world	Social compensation	0.39**
	Away from the real world	0.52**
Romance	Love	0.41**
	Sexual partners	0.36**

**. p < 0.01

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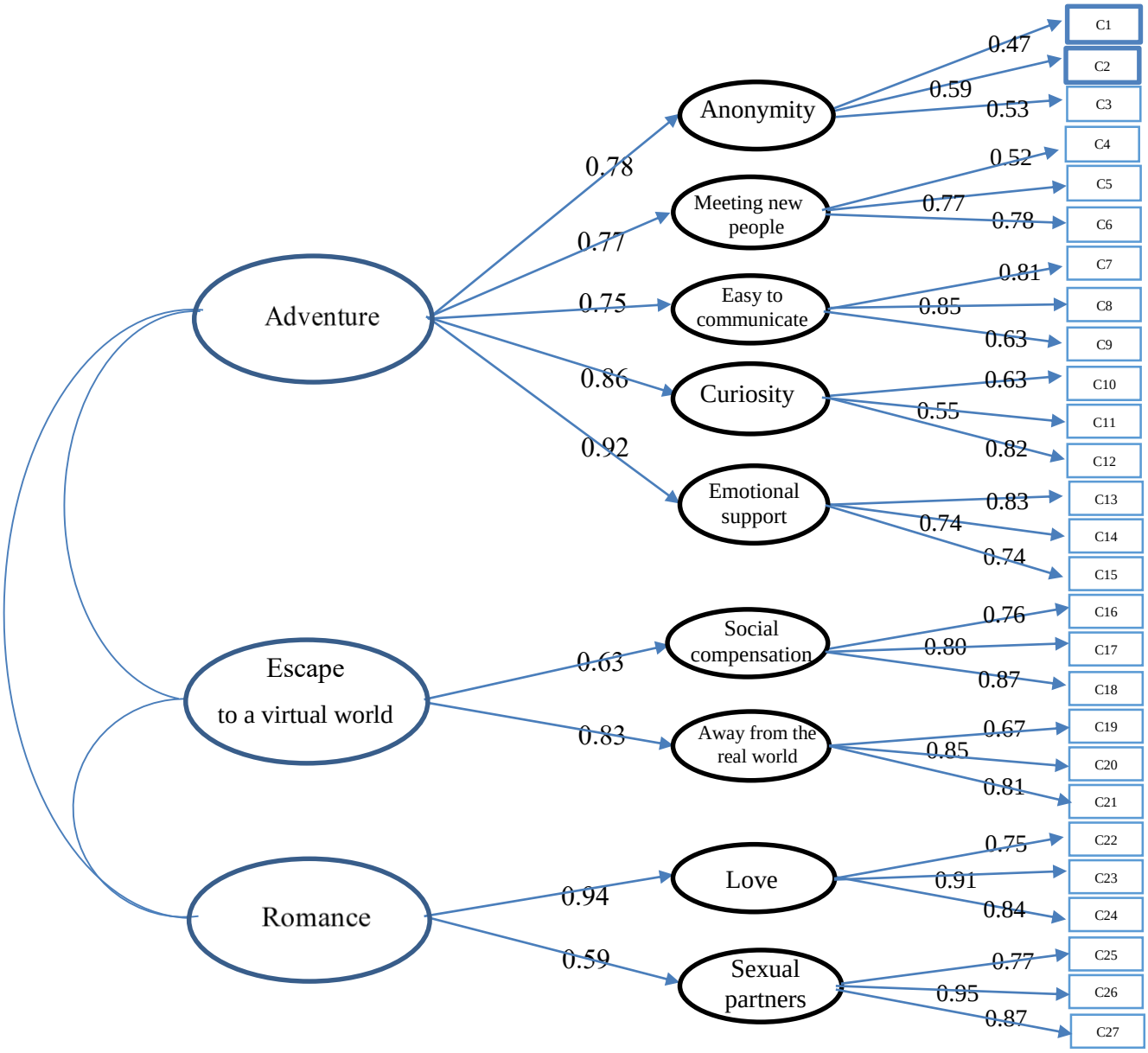
Figure 2

Standardized factor loadings of CRM based on Wang, C., & Chang, Y. (2010) model



4. Discussion and Conclusion

The present study aimed to investigate the factor structure and reliability of the Farsi version of the Cyber Relationship Motivation Scale (CRM). Accessibility of the Persian version of CRM provides the researchers with an opportunity to conduct other studies on the motives for internet relationships and other social and psychological variables. Cronbach's alpha and retest methods were used to measure the reliability, which, according to (Nunnally, 1975), is the necessary and sufficient condition to determine the internal consistency of a scale with the help of Cronbach's alpha coefficient. In this study, Cronbach's alpha coefficient for the whole scale was 0.92 and Cronbach's alpha coefficient for the subscales was obtained as follows: anonymity: 0.54, opportunity to meet new people: 0.73, easy to communicate: 0.80, curiosity: 0.74, emotional support: 0.83, social compensation: 0.80, away from the real world: 0.82, love: 0.87, finding a sexual partner: 0.90 and for the dimension of adventure: 0.89, the dimension of escaping to a virtual world: 0.82 and the dimension of romance: 0.87.

According to the findings, this scale demonstrates strong internal consistency and exhibits a significant and consistent relationship between its items and components. The items

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within this scale also display internal correlation, stability, and coherence, indicating that they effectively represent a single variable. In conclusion, the results indicate that the items align with the measured parameters, and the Persian version of CRM demonstrates satisfactory validity.

This study found a strong correlation among all of the CRM components. The results of this investigation, as shown in Figure 2 and Table 2, confirmed the nine-factor structure. The factor structure obtained in this study aligns with the results of factor analysis in previous research undertaken by CRM developers. Thus, the factor structure remains consistent in terms of both the quantity and significance of the obtained components. The retest approach demonstrated a strong connection between the scores of the two evaluations, indicating the reliability of the results over time. The reliability coefficients of the scale evaluated by the internal consistency method demonstrated that the factors had high reliability. The concurrent evaluation of validity aspects revealed a significant correlation between CRM scores and IARI scores.

In order to assess the validity of the scale, both construct validity and convergent validity were used. The construct validity of the cyber relationship motives scale was confirmed. The result of the confirmatory factor analysis to measure the construct validity showed that the research data were in harmony with the model because the fit indices were in the appropriate range and the Iranian model used in this research had a good fit. The scale has a factor structure with 9 sub-scales, the items related to each scale show a suitable factor load (between 0.47 and 0.95) compared to their underlying variables, hence confirming the construct validity of the scale. Moreover, Pearson's correlation coefficient was used to check the convergent validity of the Internet relationship motivation scale with the Internet emotional relationship scale, and all the subscales of the Internet relationship motivation scale had positive and significant correlations.

Furthermore, comparing the mean scores of women and men in different dimensions showed that women and men differ in the sub-scale of finding a sexual partner in online relationships, which is in line with the research by Clemens et al. (2015) indicating that women are less likely than men to seek occasional sex on the Internet (Clemens et al., 2015).

The findings of this academic research on the Cyber Relationship Motives (CRM) questionnaire are noteworthy. The CRM questionnaire, which was recently developed, has not yet been extensively studied across different countries and cultures. However, the results of this research indicate that this tool exhibits a similar factor structure in both Iranian society and the society originally studied by the tool's developers. One of the key reasons for these findings may be the uniformity of online communication platforms, which provide a consistent user experience globally, regardless of cultural differences. Although the content available online can vary based on cultural contexts, the structures and processes of these platforms are largely uniform. This uniformity in the environment and communication features of online platforms likely contributes to the similar factor structures of the CRM questionnaire observed in both Iranian and Taiwan samples.

The Persian version of CRM has been found to be valid, making it suitable for future research and consulting endeavors. The number of scale questions is enough to provide sufficient information.

5. Limitations & Suggestions

Researchers can utilize this measure to acquire a thorough comprehension of internet interactions and the motives that drive them. The present study used a sample comprising of students to validate the scale; however, future studies should include samples from different internet users to generalize the findings. An essential research question can be investigating the differences in motivation between students and public Internet users. Since the study was conducted in Iran, cultural background may be a contributing factor to people's motives for cyber relationships related to romance and sexual partners. Therefore, future researchers can use the tool evaluated in this study to conduct cross-cultural comparisons of the motives for cyber relationships.

Acknowledgments

We would like to express our appreciation and gratitude to all those who cooperated in carrying out this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. The research proposal underwent scrutiny by the Research Ethics Committee, ensuring adherence to participant rights and

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researchers' expertise, and received approval and registration under code IR.UOK.REC.1402.011.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contributed in this article.

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