

# The Psychometric Properties of the Persian Version of Emotional Abuse Questionnaire

Kosar Shafiei Rezvani Nejad<sup>1</sup>, Zinat Sadat Mirpour<sup>2</sup>, Mohammad Hassan Novin<sup>3</sup>, Anita Najafi Chenari<sup>4</sup>, Zakiyeh Jafaryparvar<sup>3\*</sup>

## Abstract

**Objective:** Intimate partner emotional abuse is a serious issue that can lead to catastrophic outcomes for victims. Emotional abuse involves psychological tactics to control, manipulate, and degrade a person within an intimate relationship. This research aimed to translate the Emotional Abuse Questionnaire (EAQ) developed by Jacobson and Gottman into Persian for use among Iranian university students.

**Method:** The translation of the 66-item EAQ involved a meticulous forward and backward translation process, linguistic matching, and a pilot review. In this cross-sectional study, 346 university students from Rasht, Iran, completed the EAQ. The mean age of participants was  $26.78 \pm 8.10$  years, with most being female (89.0%). Reliability was evaluated using Cronbach's alpha and test-retest analysis while content and face validity were assessed by a panel of experts. Construct validity was examined through confirmatory factor analysis (CFA) and internal consistency measures. Divergent validity was assessed by comparing the EAQ with the ENRICH Marital Satisfaction Scale (EMS).

**Results:** Impact scores for face validity ranged from 2.33 to 3.92, based on respondents' ratings of frequency and importance. Content validity assessment led to removing four items with a CVR below 0.62, resulting in 62 valid items. The EAQ showed strong internal consistency, with a Cronbach's alpha of 0.97, exceeding the acceptable threshold of 0.70. CFA results confirmed the validity of the second-order factor model of the EAQ ( $\chi^2/df = 4.34$ , CFI = 0.95, RMSEA = 0.098, SRMR = 0.077). The EAQ demonstrated a strong correlation with EMS measures, confirming divergent validity.

**Conclusion:** The Persian version of the EAQ is a reliable instrument for assessing emotional abuse among Iranian university students. Future research should explore the cultural sensitivity of the questionnaire and investigate associations between emotional abuse and other variables of interest, such as mental health outcomes or relationship dynamics. These avenues promise valuable insights into the frequency and effects of emotional abuse across diverse cultural contexts.

**Key words:** *Dating Violence; Emotional Abuse; Intimate Partner Abuse; Psychological Abuse; Psychometrics*

1. Department of Psychology, Shiraz Branch, Islamic Azad University, Shiraz, Iran.
2. Department of Psychology, Rasht Branch, Islamic Azad University, Rasht, Iran.
3. Kavosh Cognitive Behavior Sciences and Addiction Research Center, Department of Psychiatry, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran.
4. Department of Psychology, Lahijan Branch, Islamic Azad University, Lahijan, Iran.

## \*Corresponding Author:

Address: Kavosh Cognitive Behavioral Sciences and Addiction Research Center, Department of Psychiatry, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran, Postal Code: 4193955599.

Tel: 98-911 4077397, Fax: 98-13 33666268, Email: jafaryparvar\_zakiyeh@yahoo.com

## Article Information:

Received Date: 2024/04/12, Revised Date: 2024/07/20, Accepted Date: 2024/07/21



Intimate partner emotional abuse is a pervasive form of domestic violence that often goes unrecognized but can have serious and enduring effects on the victims (1, 2). Emotional abuse involves the use of psychological tactics to control, manipulate, and degrade a person within an intimate relationship, encompassing behaviors such as humiliation, threats, intimidation, gaslighting, isolation, and degradation (3-5). This form of abuse erodes the victim's self-esteem, self-worth (6), and overall mental well-being, leading to a range of negative consequences (7). Understanding the dynamics and impact of intimate partner emotional abuse is crucial for effective prevention and intervention strategies (8).

Numerous studies have highlighted the prevalence and impact of intimate partner emotional abuse, underscoring the need for greater awareness and understanding of this form of abuse. For instance, research conducted by Stark and Flitcraft found that emotional abuse occurs in approximately 80% of abusive relationships (9). Furthermore, a meta-analysis of studies conducted in 16 countries revealed that emotional abuse is more common compared to physical or sexual abuse, affecting up to 70% of women and 50% of men in some settings (10). These statistics emphasize the widespread nature and significant impact of emotional abuse, making it a critical public health issue.

Emotional abuse is not only widespread but also significantly detrimental to mental health. Research indicates that emotional abuse serves as a notable predictor of depression and anxiety in women who have encountered intimate partner violence (7, 11). Emotional abuse victims often experience psychological distress, post-traumatic stress disorder (PTSD), depression, anxiety, suicidal ideation, and physical health problems (12-14).

Emotional abuse can have significant effects on various populations, including students, impacting their academic performance, mental health, and overall well-being (15-17). By developing and validating the Emotional Abuse Questionnaire (EAQ) specifically for university students, this study provides a robust tool to identify and address emotional abuse in educational settings. This initiative aligns with broader efforts to promote healthy relationships, prevent interpersonal violence, and support the well-being of young adults in educational environments. Understanding and mitigating emotional abuse among university students is crucial not only for their immediate health and academic outcomes but also for fostering a safe and supportive educational environment conducive to learning and personal growth. Despite its critical effect, emotional abuse is often left out or minimized, and victims often avoid asking for help because of emotions such as shame, guilt, and self-blame (18). Therefore, abusive relationships are complex, continuous, dynamic and intertwined with contextual situations, as well as retention factors, causal conditions, and intervening situations (19). Since

individuals of all ages can engage in emotional abuse, it is crucial to make efforts to promote healthy relationships across the lifespan (20). Given the high occurrence and enduring results of emotional abuse in the emotional well-being of intimate partner violence (IPV) survivors, it is highly critical to cope with this trouble. The widespread nature of emotional abuse underscores the need for culturally suitable and psychometrically sound measures of this form of abuse. Emotional abuse within intimate relationships is a complex phenomenon influenced by cultural contexts (21), which can shape both its manifestation and its consequences. Cultural factors such as norms, values, and societal expectations play a crucial role in how emotional abuse is perceived, expressed, and addressed within different communities (22). Understanding these cultural subtleties is vital for creating effective prevention and intervention approaches tailored to specific cultural contexts, such as Iran. By exploring how cultural factors impact the recognition and response to emotional abuse, this research intends to enhance the relevance and applicability of intervention efforts within the Iranian context.

The EAQ is a scale with 66 items developed by Jacobson and Gottman (23) and it is currently the only emotional abuse scale that has been translated into Persian for adults. This questionnaire includes four subscales (i.e., isolation, degradation, sexual abuse, and property damage) that assess important components of emotional abuse in intimate relationships. Evaluating the validity of the EAQ is essential to determine its effectiveness and applicability in the Persian context. This tool measures emotional abuse in intimate relationships and has been validated in the Turkish language and context (24), demonstrating good measurement characteristics. However, the Persian version of the EAQ has not yet been validated in Iran. To address this gap, this study designed to assess the psychometric properties of the Persian version of the EAQ in an Iranian sample. The study evaluates the reliability and validity of the Persian version of the EAQ and examines the factor structure of the measure. This study highlights the importance of developing and validating culturally appropriate measures of emotional abuse in Iran and emphasizes the need for greater awareness and understanding of emotional abuse as a serious form of abuse.

## Materials and Methods

### *Study Design and Participants*

The research focused on validating a questionnaire using a cross-sectional study design conducted in Rasht, Iran, spanning from November 2022 to May 2023. Volunteer participants aged 18 and above from Rasht universities were selected through convenience sampling, with a targeted sample size of 330. This followed the recommended subject-to-item ratio of at least 5 subjects for every item (5:1) for conducting factor analysis (25).

The use of convenience sampling in this study may limit the generalizability of the findings due to potential selection biases, such as selection bias, non-response bias, and sampling bias. The questionnaire took up at least 5 minutes to complete, and in total 346 participants completed the questionnaire. The inclusion criteria were as follows: (a) participants must be Bachelor's and Master's university students who are either in a relationship or married, (b) they must be aged 18 years or older, (c) they must be residents of Rasht, Iran, and (d) they must be proficient in reading and writing Persian. Ethics approval was obtained from the research ethics committee of Guilan University of Medical Sciences (approval no. IR.GUMS.REC.1402.152) on 06/14/2023.

Descriptive statistics for continuous variables were examined through mean  $\pm$  standard deviation, while categorical variables were expressed as numerical values (percentages). Purposeful sampling was employed to assess reliability, while convenience sampling was used for validity evaluation. All statistical analyses were conducted using SPSS, while LISREL was employed for the execution of Confirmatory Factor Analysis (CFA).

### **Instruments**

#### **1. Emotional Abuse Questionnaire (EAQ)**

The EAQ is a self-report survey designed for individuals to evaluate diverse aspects of emotional abuse within intimate relationships. Originating in 1998 from the work of Jacobson and Gottman, the questionnaire comprises 66 items. In this study, a revised version of the questionnaire consisting of 62 items was utilized based on the results of our research. These items assess four dimensions: Isolation (EAQ1 to EAQ22), Degradation (EAQ23 to EAQ49), Sexual Abuse (EAQ50 to EAQ56), and Property Damage (EAQ57 to EAQ62). Respondents provide scores for each item using a four-point Likert scale, spanning from 1 (never) to 4 (always). The total score on the questionnaire can fluctuate between a minimum of 62 and a maximum of 248. The Isolation subscale consists of 22 items, including "My partner checks up on me." The Degradation subscale consists of 27 items; like "My partner insults my family." The Sexual Abuse subscale comprises seven items, such as "My partner pressures me to have sex after an argument." The Property Damage subscale consists of six items, like "My partner intentionally damages things I care about" (23). In 2009, this questionnaire was translated into Turkish and underwent evaluation in terms of psychometric properties. The Cronbach's alpha value were 0.89 for the Isolation subscale, 0.92 for the Degradation subscale, 0.73 for the Sexual Abuse subscale, and 0.86 for the Property Damage subscale (24). In this research, the Cronbach's alpha value for the total 62 items in the EAQ was 0.97. In addition, the Cronbach's alpha values in this study for Isolation, Degradation, Sexual Abuse, and Property Damage subscales were reported as 0.94, 0.95, 0.88, and 0.87, respectively.

#### **2. ENRICH Marital Satisfaction Scale (EMS)**

The short form of the Enrich Marital Satisfaction Questionnaire has 47 items which was created by Olson, Fournier, & Druckman (1987). This questionnaire was employed to assess divergent validity. The items in this questionnaire are rated on a five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). The subscales of the "Enrich Questionnaire" effectively differentiate between satisfied and dissatisfied couples. In this scale, the analysis is based on raw scores and a high score indicates higher marital satisfaction (26). The questionnaire underwent translation into Persian and was assessed for psychometric properties. In exploratory factor analysis, two factors were obtained from the Enrich questionnaire using a scree plot. The first and second factors accounted for 29% and 52% of the variance, respectively, yielding a Cronbach's alpha coefficient of 0.74. To investigate the validity of the Enrich Short Form questionnaire structure, the mean ( $\pm$  standard deviation) score of its 11 items was compared between two groups: divorce applicants ( $118.8 \pm 25.3$ ) and the general population ( $131.6 \pm 31.6$ ), revealing a statistically significant lower satisfaction score in the divorce applicant group ( $P < 0.001$ ) (27).

#### **Translation Process of EAQ**

First, with permission from the copyright holder, the initial stages of the research proceeded as follows: First, the English questionnaire was translated to Persian. Subsequently, this Persian version was back-translated into English by an individual proficient in both languages. The initial English version was then compared with the back-translated English version for consistency. To ensure accuracy and consistency with the original text, the Persian translation was reviewed by three English linguists, three psychologists, and university professors, and any recommended changes from this group were then incorporated accordingly (28).

#### **Reliability Analysis**

The internal consistency of the questionnaire was evaluated using Cronbach's alpha coefficient, and a value of 0.70 or higher indicated satisfactory results for each subscale (29). To assess the reliability of the questionnaire, a test-retest approach was used; a cohort of 25 university students filled out the questionnaire with a two-week gap between each submission. The stability of the questionnaire was gauged by analyzing the test-retest reliability through the intra-class correlation coefficient (ICC). An ICC value of 0.75 or greater was considered to represent a satisfactory level of test-retest reliability (30).

#### **Face Validity**

To ensure the accuracy of the questionnaire, 12 university students were chosen to evaluate face validity. They were requested to offer feedback on the clarity and relevance of each question and to identify any potential issues with interpretation. They were asked to express their understanding of the difficulty, appropriateness, and ambiguity of the topics raised in each item. Based

on their input, modifications were made to the phrasing of the questionnaire (31). In addition, we utilized a quantitative method known as the item impact score (Item Impact Score = Frequency (%) × Importance) to assess face validity. This score is determined by multiplying the frequency percentage, representing the proportion of individuals who rated an item as important, by the average importance score for each item. Specifically, the frequency percentage was calculated by dividing the number of respondents who rated an item as 4 or 5 on a 5-point Likert scale by the total number of respondents (32). The importance score reflects the average rating of an item's suitability on the Likert scale, ranging from 1 (not suitable at all) to 5 (quite suitable). Items with an impact score exceeding 1.5 were deemed suitable for further analysis. This method ensured a thorough evaluation of face validity within our study (33).

#### **Content Validity**

A panel of ten experts, consisting of psychologists and counselors with clinical expertise in abusive relationships, assessed the questionnaire's content validity. They scored each item on relevance, specificity, clarity, and simplicity using a Likert scale. An acceptable Content Validity Index (CVI) was defined as 0.80 or higher (34). The panel additionally established the Content Validity Ratio (CVR) for each item, gauging its necessity on a three-point Likert scale. A CVR value exceeding 0.62 was deemed necessary for each item, guided by the Lawshe table (N = 10) (35).

#### **Divergent Validity**

Divergent validity was evaluated by calculating Pearson's correlation coefficients between the EAQ and the EMS.

#### **Pilot Study**

To conduct the pilot study, we engaged a cohort of twenty-five students to complete the provisional version of the EAQ. Alongside evaluating the questionnaire's internal consistency, indicated by an impressive overall Cronbach's alpha coefficient of 0.98 for the 62-item EAQ, and high-reliability coefficients for its subscales, such as 0.96 for isolation, 0.97 for degradation, 0.93 for sexual abuse, and 0.90 for property damage, we also aimed to determine the feasibility of the questionnaire and identify potential weaknesses (36). This proactive approach allowed us to evaluate the clarity, comprehensibility, and relevance of the questionnaire items while gathering valuable feedback to identify any logistical or practical challenges that might arise during the study. By addressing these concerns early on, we ensured a smoother implementation of the questionnaire, thereby enhancing its overall validity and reliability. Importantly, it was found that no revisions were necessary based on the findings from the pilot study, affirming the thoroughness and effectiveness of the questionnaire's development process.

#### **Construct Validity**

Construct validity was evaluated through CFA to evaluate the second-order four-factor structure of the EAQ (i.e., Isolation, Degradation, Sexual Abuse, and Property Damage) by Jacobson and Gottman (23). The CFA was performed via maximum-likelihood estimation using the covariance matrix. The model fit was assessed using various goodness-of-fit indices, such as the chi-square/degree of freedom ( $\chi^2/df$ ), the comparative fit index (CFI), the normed fit index (NFI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Acceptable model fit is indicated by  $\chi^2/df < 5$ , GFI, NFI, CFI, and NFI  $> 0.90$ , and RMSEA and SRMR  $< 0.08$  (37-40).

## **Results**

#### **Participant Characteristics**

The mean age of participants was  $26.78 \pm 8.10$  years. Most participants were female (89.0%), and the predominant marital status was single (74.0%). Table 1 presents a summary of the demographic characteristics of the sample.

#### **Descriptive Statistics**

Table 2 presents the descriptive statistics for the EAQ. The mean total EAQ score was 85.24 (SD = 27.46).

#### **Face Validity**

In the quantitative step, the translated questionnaire was validated. Both qualitative and quantitative methods were employed to evaluate face validity and content validity. 12 university students were selected for face validity analysis in the quantitative face validity study. These students were clients in treatment who had experienced emotional abuse, and their responses were assessed for direct relevance and value to evaluate the clarity and relevance of the questionnaire items. Influence scores for each factor varied between a minimum of 2.33 and a maximum of 3.92. The mean effect score for the 66 items was calculated as  $0.37 \pm 3.4$ . Therefore, the items were considered valid in terms of quantitative face validity according to this index based on accepted standards of quantitative face validity (less than 1.5).

#### **Content Validity**

The questionnaire underwent content validity evaluation by a panel consisting of ten experts. Following Lawshe's criteria, the minimum significance value in the panel was 0.62. Therefore, four items out of 66 items had a CVR less than 0.62. Specifically, item 15, 'My partner threatens to take the car keys if I don't do as I am told,' with a CVR of 0.2, item 17, 'My partner threatens to take the checkbook if I don't do as I am told,' with a CVR of 0.2, item 51, 'I'm worried most when my partner is quiet,' with a CVR of 0.2, and item 66, 'My partner does cruel things to pets,' with a CVR of -0.2 were removed. The CVR for the remaining items ranged between 0.6 and 1. According to the CVI, all items scored between

0.9 and 1, demonstrating acceptable validity in terms of simplicity, clarity, and relevance. Finally, 62 items were deemed valid.

**Reliability Analysis**

The questionnaire showed strong internal reliability, with an overall Cronbach's alpha of 0.97 and ranging from 0.87 to 0.95 for each subscale. The Cronbach's alpha coefficient of the questionnaire was above the acceptable minimum criterion of 0.7 (29), indicating strong internal consistency, which suggests exceptionally reliable and

precise measurement of emotional abuse experiences across diverse populations, enhancing its utility in both research and clinical practice.

The ICC was employed to evaluate the instrument's stability over time. A 62-item questionnaire was administered to a sample of 25 clients who had experienced abusive relationships, and it was repeated two weeks later. The subscales also exhibited a statistically significant ICC ranging from 0.89 to 0.95 ( $P < 0.001$ ) (Table 3).

**Table 1. Socio-Demographic Characteristics of the Participants (n = 346)**

	n (%)
Age (years) (Mean ± SD)	26.78 ± 8.10
Sex	
Male	38 (11.0)
Female	308 (89.0)
Marital Status	
Single (in a relationship)	256 (74.0)
Married	90 (26.0)

Values are expressed as No. (%)

**Table 2. Descriptive Statistics of the Emotional Abuse Questionnaire**

	No of items	Possible range	Observed range	Mean (SD)
Isolation	22	22-88	22-84	33.38 (11.62)
Degradation	27	27-108	27-105	36.44 (13.27)
Sexual Abuse	7	7-28	7-28	8.68 (3.41)
Property Damage	6	6-24	6-19	6.75 (2.12)
EAQ total score	62	62-248	62-236	85.24 (27.46)

EAQ: Emotional Abuse Questionnaire; SD: Standard Deviation.

**Table 3. Internal Consistency and ICC of Emotional Abuse Questionnaire**

	No of items	Cronbach's alpha (N = 346)	ICC (95% CI) (N = 25)
Isolation	22	0.94	0.91 (0.79-0.96)
Degradation	27	0.95	0.91 (0.81-0.96)
Sexual Abuse	7	0.88	0.95 (0.88-0.97)
Property Damage	6	0.87	0.91 (0.81-0.96)
EAQ total score	62	0.97	0.89 (0.77-0.95)

EAQ: Emotional Abuse Questionnaire; ICC: Intra-class Correlation Coefficient.

**Divergent Validity**

To evaluate divergent validity, we calculated Pearson's correlation coefficients between the EAQ and the EMS. The results indicated a significant negative correlation between the EAQ and marital satisfaction ( $\rho = -0.701, P < 0.001$ ).

**Construct Validity**

Construct validity was evaluated using confirmatory factor analysis, illustrated in Figure 1. A second-order analysis was performed using the LISREL software, as detailed in Table 4. The fitness indices displayed values suggesting a satisfactory or desirable fit for the model.

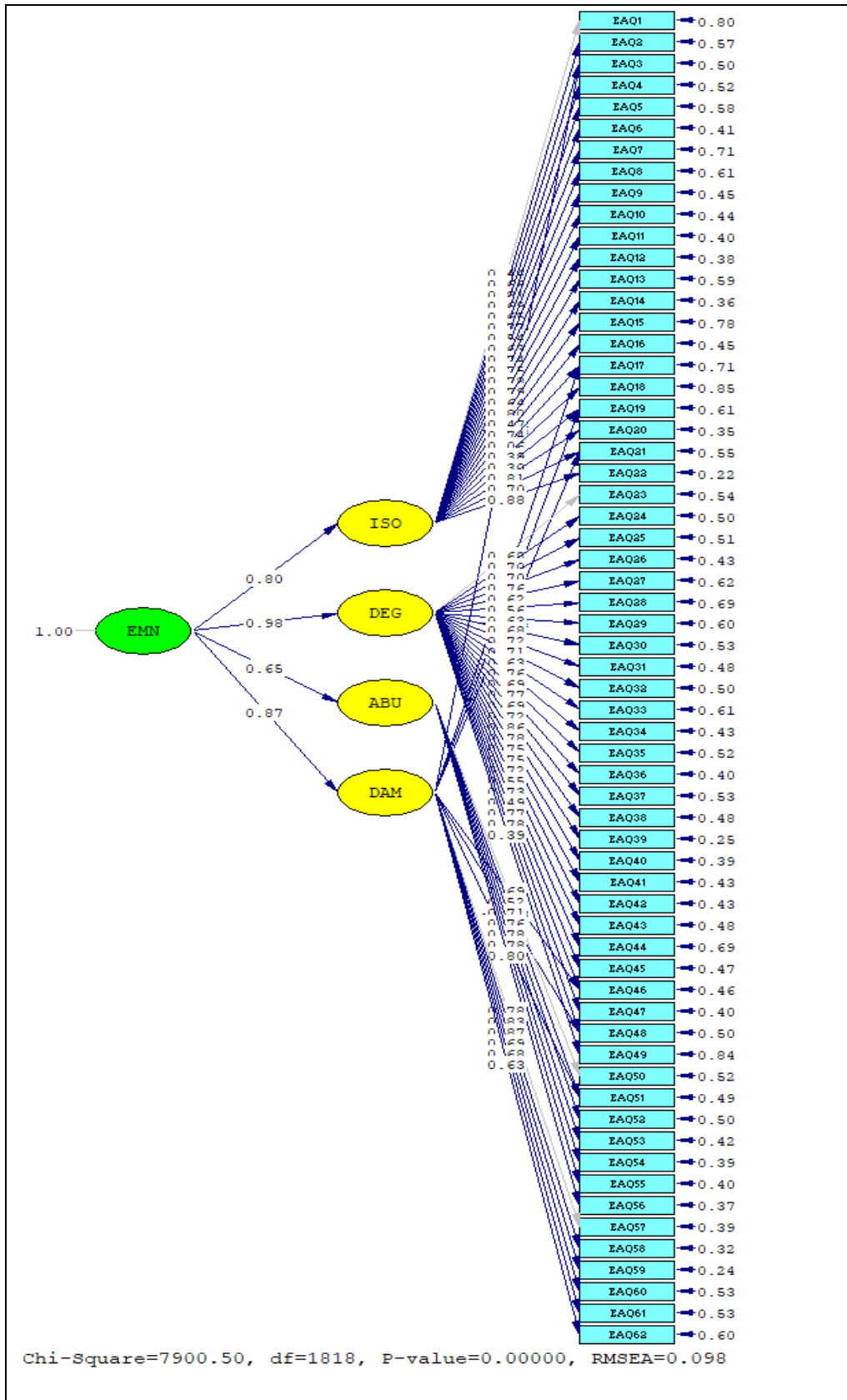


Figure 1. Confirmatory Factor Analysis Results for the Emotional Abuse Questionnaire

Table 4. Fit Indices of Emotional Abuse Questionnaire

Index	$\chi^2$	df	P	$\chi^2/df$	RMSEA	SRMR	GFI	NNFI	NFI	CFI
EAQ	7900.50	1818	< 0.001	4.34	0.098	0.077	0.58	0.95	0.94	0.95

## Discussion

The present study aimed to achieve two primary objectives: first, to translate the EAQ from English to Persian, and second, to evaluate its efficacy in measuring emotional abuse among university students in Rasht city, Guilan province, in northern Iran.

Our study underscores the significance of each subscale in the Emotional Abuse Questionnaire (EAQ), namely Isolation, Degradation, Sexual Abuse, and Property Damage, which collectively illuminate the multifaceted nature of emotional abuse. Isolation tactics, including limiting social interactions or confining movements, aim to undermine victims' identities beyond the relationship, fostering dependency (41). Degradation involves using intimate knowledge to demean victims (42), impacting their emotional and psychological well-being and often preceding physical abuse, linked to the sexual abuse dimension of our questionnaire. Swadley's research explored risk factors influencing victims of interpersonal violence, highlighting economic abuse and sexual coercion as persistent predictors of re-entering abusive situations (43). Additionally, property damage, identified as symbolic violence in psychological abuse studies, underscores its role in broader patterns of emotional abuse (44). Follingstad *et al.* identified five types of psychological abuse, one of which was damage of property (45). Together, these subscales offer a comprehensive assessment of emotional abuse, facilitating targeted interventions that address the specific forms of abuse experienced by the individual needs of those affected, promoting more effective support and recovery.

In the content validity stage of this research, according to Lawshe's table (35), four items received unsatisfactory scores and were subsequently removed from the questionnaire, resulting in a final item count of 62.

In assessing the temporal stability, we observed strong ICC values across various subscales and the total score. These findings indicate a high level of consistency and reproducibility in responses over a two-week interval. Importantly, the ICC values surpass the commonly accepted threshold of 0.75 for satisfactory test-retest reliability (30), thereby confirming the robustness of our results. Specifically, the Sexual Abuse subscale showed particularly higher stability. This contrasts with findings from Karakurt *et al.*, whose examination of the EAQ's Sexual Abuse subscale primarily focused on its factor structure and yielded lower validity scores despite acceptable reliability measures (24). This may be due to the variations in cultural norms that govern sexual behavior.

Furthermore, the EAQ demonstrated strong internal consistency. In the final sample of 346 participants, the overall Cronbach's alpha coefficient for the 62-item EAQ was 0.97, significantly exceeding the acceptable threshold of 0.70. This indicates exceptionally reliable and precise measurement of emotional abuse experiences across diverse populations, enhancing its utility in both research and clinical practice. The subscale coefficients for Isolation, Degradation, Sexual Abuse, and Property Damage were 0.94, 0.95, 0.88, and 0.87, respectively, indicating a high level of reliability for each subscale. These findings underscore the reliability of the EAQ as a valid instrument for assessing emotional abuse in intimate relationships within the context of Iran.

The construct validity of the EAQ was confirmed through the CFA. To assess the four subscales, we conducted a CFA. The goodness-of-fit indices, including  $\chi^2/df$ , RMSEA, SRMR, CFI, NNFI, and NFI, all met the criteria for acceptability. However, the GFI yielded a value of 0.58, falling below the acceptable threshold of 0.8 (46). It is essential to note that the GFI can be influenced by the sample size; a substantial difference between the degrees of freedom and the sample size may introduce a downward bias to the GFI. (47). The large sample size and the complexity of the model likely contributed to this discrepancy. Despite this, the other fit indices suggest that the model fits the data well, and the lower GFI does not necessarily undermine the overall validity of the CFA model.

CFA results indicated that all 62 items of the tool exhibited a significant loading factor on the construct. The CFA in this study affirmed the validity and reliability of the scale for assessing emotional abuse. Furthermore, this reliable scale aligns well with the cultural context of Iran and proves beneficial in understanding the factors contributing to emotional abuse in Iranian couples. This result is in line with prior research conducted in Turkey, which indicated a strong internal consistency for the EAQ (24, 48).

Studies emphasize the importance of preventing emotional abuse among university students, who are particularly vulnerable to its effects on academic performance, mental health, and overall well-being (15-17). A validated EAQ is arguably important amongst educational providers that deal with this learner population as it can provide heightened awareness leading to early identification and potential intervention. The recognition of emotional abuse among university students as an important issue enables organizations to develop prevention strategies and interventions to protect students' psychological well-being. Such efforts

fit into broader public health frameworks that seek to prevent intimate partner violence and improve relationship quality among young adults (17). This will contribute to students' well-being and a supportive academic environment by integrating effective emotional abuse awareness interventions into university curricula and support services.

### Limitation

A few limitations of this study should be noted. First, a convenience sample may lead to selection bias and therefore might not be fully and adequately reflective of the community. As a result, limitations in generalizability may introduce bias into the results of this study. Second, the participation rate among male respondents was low. Although we made sure to select a good number of samples, our expected number of male participants was not met. This gender role identification may be associated with lower opportunities for men to learn about or report emotional abuse as per previous findings such as Fernandez's (2015) reported non-compliance with traditional gender roles as an object implies leaving an abusive relationship (49). Another limitation is that the study included only students from universities in Rasht, Iran, thus limiting the diversity of the sample. Therefore, these results do not apply to other regions or populations in Iran, even across cultures. Given this geographical limitation, one should exercise caution in applying these results beyond this particular study.

### Conclusion

We found that EAQ had strong psychometric properties in measuring emotional abuse among Iranian populations. However, following the removal of four items determined by Lawshe's criterion, the questionnaire's content validity was verified further, and ultimately its items totaled 62. The high values of ICC indicated this questionnaire's temporal stability, while its excellent long-term reliability was reflected in a value for internal consistency (Cronbach's alpha: 0.97). The results of the CFA supported construct validity of EAQ, and all items had a significant loading factor on emotional abuse construct. Future studies should examine the convergent validity of EAQ as well as its cross-cultural appropriateness to be able to further generalize findings in this area of intimate partner violence research in Iran. In addition to call for development of culturally sensitive tools and examination on the link between emotional abuse with mental health outcomes or relationship dynamics in different countries, we suggest future research priorities that expand these aspects would provide a better understanding regarding prevalence and impact of emotional abuse. Additionally, it will be essential to conduct continued research about the scale in different populations to broaden its use and application when attempting to understand emotional abuse.

### Acknowledgment

The authors would like to thank the participants for their kind participation in this study, and the experts of the panel for their valuable comments and support. We also extend our gratitude to the research center of Kavosh and the Research and Technology Deputy of Giulan University of Medical Sciences for their collaboration in implementing this research project.

### Conflict of Interest

None.

### References

1. Petric D. Psychology of Abusive Human Behavior. *Open J Med Psychol*. 2022;11(2):29-38.
2. van Wormer KS, Bartollas C. *Intimate Partner Violence. Women and the Criminal Justice System*. UK: Routledge; 2021:279-327.
3. Bates EA. "Walking on egg shells": A qualitative examination of men's experiences of intimate partner violence. *Psychol Men Masculinities* 2020;21(1):13.
4. McHugh MC, Rakowski S, Swiderski C. Men's Experience of Psychological Abuse: Conceptualization and Measurement Issues. *Sex roles*. 2013;69(3-4):168-81.
5. Karakurt G. Women's Psychological Abuse of Male Intimate Partners. *The SAGE Handbook of Domestic Violence*. 2020:255.
6. Effects of psychological abuse on women's self-esteem and dating relationships. *International Journal of Interdisciplinary Approaches in Psychology*. 2024;2(4):291-309.
7. Radell ML, Abo Hamza EG, Daghestani WH, Perveen A, Moustafa AA. The Impact of Different Types of Abuse on Depression. *Depress Res Treat*. 2021:6654503.
8. Moulding N, Franzway S, Wendt S, Zufferey C, Chung D. Rethinking Women's Mental Health After Intimate Partner Violence. *Violence Against Women*. 2021;27(8):1064-90.
9. Stark E, Flitcraft A. *Women at risk: Domestic violence and women's health*: Sage Publications; 1996.
10. Devries KM, Mak JY, García-Moreno C, Petzold M, Child JC, Falder G, et al. Global health. The global prevalence of intimate partner violence against women. *Science*. 2013;340(6140):1527-8.
11. Karakurt G, Smith D, Whiting J. Impact of Intimate Partner Violence on Women's Mental Health. *J Fam Violence*. 2014;29(7):693-702.
12. Bonomi AE, Anderson ML, Nemeth J, Bartle-Haring S, Buettner C, Schipper D. Dating violence victimization across the teen years: abuse frequency, number of abusive partners, and age at first occurrence. *BMC Public Health*. 2012;12:637.



13. Brewer NQ, Thomas KA. Intimate partner violence and academic performance: the role of physical, mental, behavioral, and financial health. *Soc Work Health Care*. 2019;58(9):854-69.
14. Dye HL. Is Emotional Abuse As Harmful as Physical and/or Sexual Abuse? *J Child Adolesc Trauma*. 2020;13(4):399-407.
15. Vidourek RA. Emotional abuse: Correlates to abuse among college students. *J Aggression Maltreat Trauma*. 2017;26(7):792-803.
16. Kumar A, Deb S, Bhagyalakshmi K. Impact of Abuse on Mental Health and Happiness Among Students: Mediating Role of Family Environment. *J Indian Assoc Child Adolesc Ment Health*. 2023;19(3):266-72.
17. Vidourek RA. Emotional abuse: Correlates to abuse among college students. *J Aggression Maltreat Trauma*. 2017;26(7):792-803.
18. Heron RL, Eisma MC. Barriers and facilitators of disclosing domestic violence to the healthcare service: A systematic review of qualitative research. *Health Soc Care Community*. 2021;29(3):612-30.
19. Mirpour Z, Rahmani M, Ghorbanshiroodi S. Explaining the concept of re-experiencing abusive relationships. *J Holist Nurs Midwifery*. 2021;31(2):124-34.
20. Mirpour Zs, Shafiei Rezvani Nejad K. Prevention of Re-experiencing Abusive Relationships: Effectiveness of Transdiagnostic Intervention Package. [Manuscript submitted for publication]. 2024.
21. Adjei SB. Partner Dependency and Intimate Partner Abuse: A Sociocultural Grounding of Spousal Abuse in Ghana. *Psychol Stud*. 2015;60(4):422-7.
22. Pokharel B, Hegadoren K, Papathanassoglou E. Factors influencing silencing of women who experience intimate partner violence: An integrative review. *Aggress Violent Behav*. 2020;52:101422.
23. Jacobson NS, Gottman JM. *When men batter women: New insights into ending abusive relationships*: Simon and Schuster; 1998.
24. Karakurt G, Ergüner-Tekinalp B, Terzi Ş. The Psychometric Qualities of the Turkish Version of Emotional Abuse Questionnaire. *Eurasian J Educ Res*. 2009(36):7-22.
25. Gunawan J, Marzilli C, Aungsuroch Y. Establishing appropriate sample size for developing and validating a questionnaire in nursing research. *Belitung Nurs J*. 2021;7(5):356-60.
26. Counselor's manual for PREPARE/ENRICH. Revised edition. Minneapolis: PREPARE/ENRICH; 1987.
27. Arab Alidousti A, Nakhaee N, Khanjani N. Reliability and validity of the Persian versions of the ENRICH marital satisfaction (brief version) and Kansas Marital Satisfaction Scales. *Health and Development Journal*. 2015;4(2):158-67.
28. Brislin RW. Translation and content analysis of oral and written materials. *Methodol*. 1980:389-444.
29. Nunnally J, Bernstein I. *Psychometric theory*. New York: McGraw-Hill; 1994.
30. Koo TK, Li MY. A Guideline of Selecting and Reporting Intraclass Correlation Coefficients for Reliability Research. *J Chiropr Med*. 2016;15(2):155-63.
31. Novin MH, Farzadfar F, Pashaei T, Razaghi E. Cross-Culture Adaptation and Psychometric Properties of the Persian Version of Duke Health Profile. *Iran J Psychiatry Behav Sci*. 2020;14(4):e102765.
32. Hardesty DM, Bearden WO. The use of expert judges in scale development: Implications for improving face validity of measures of unobservable constructs. *J Bus Res*. 2004;57(2):98-107.
33. Saneii SH, Heidari M, Zaree M, Akbarfahimi M. Psychometric features of the Persian version of the fatigue impact scale in Iranian stroke patients. *J Adv Med Biomed Res*. 2020;28(127):111-8.
34. Polit DF, Beck CT. The content validity index: are you sure you know what's being reported? Critique and recommendations. *Res Nurs Health*. 2006;29(5):489-97.
35. Lawshe CH. A quantitative approach to content validity. *Pers Psycho*. 1975;28(4):563-75.
36. Hassan ZA, Schattner P, Mazza D. Doing A Pilot Study: Why Is It Essential? *Malays Fam Physician*. 2006;1(2-3):70-3.
37. Bentler PM. Comparative fit indexes in structural models. *Psychol Bull*. 1990;107(2):238-46.
38. Byrne BM. *Structural equation modeling with EQS and EQS/Windows: Basic concepts, applications, and programming*: Sage; 1994.
39. McDonald RP, Ho MH. Principles and practice in reporting structural equation analyses. *Psychol Methods*. 2002;7(1):64-82.
40. Kline RB. *Principles and practice of structural equation modeling*: Guilford publications; 2023.
41. Karakurt G, Silver KE. Emotional abuse in intimate relationships: the role of gender and age. *Violence Vict*. 2013;28(5):804-21.
42. Follingstad DR, Coyne S, Gambone L. A representative measure of psychological aggression and its severity. *Violence Vict*. 2005;20(1):25-38.
43. Swadley RL. *Returning to abusive relationships: Related and predictive factors*. [master's thesis]. Springfield (MO): Missouri State University; 2017.
44. Engel B. *The emotionally abusive relationship: How to stop being abused and how to stop abusing*: John Wiley & Sons; 2023.
45. Follingstad DR, Rutledge LL, Berg BJ, Hause ES, Polek DS. The role of emotional abuse in physically abusive relationships. *J Fam Violence*. 1990;5:107-20.
46. Kline RB. *Principles and practice of structural equation modeling*: Guilford publications; 2023.
47. Sharma S, Mukherjee S, Kumar A, Dillon WR. A simulation study to investigate the use of cutoff values for assessing model fit in covariance structure models. *J Bus Res*. 2005;58(7):935-43.

48. Waltz J, Babcock JC, Jacobson NS, Gottman JM. Testing a typology of batterers. *J Consult Clin Psychol.* 2000;68(4):658-69.
49. Fernandez MC. Immigrant mothers in abusive relationships: Decisions and actions: University of Miami; 2015.