Journal of
Social Behavior and Community Health

Psychometric Features of the Emotional Climate Scale for Couples in Divorce Applicants

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ARTICLEINFO

ORIGINAL ARTICLE

Article History:
Received: 2024/09/23
Revised:2024/10/5
Accepted: 2024/10/6

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Citation:
Sorbi MH, Ardian N, Qane-Mokhlesoon S, Habib ShE. Psychometric Features of the Emotional Climate Scale for Couples in Divorce Applicants. Journal of Social Behavior and Community Health .2024; 8(2): 1380-1393.

ABSTRACT

Background: In Iranian courts, counseling centers, and research institutes, the Family Emotional Atmosphere Questionnaire (FEAQ) by Navardgahfard in 1994 is widely used to assess the status of marital relationships. However, the FEAQ's contents are outdated, containing irrelevant questions, and lacking valid psychometric properties. Therefore, the aim of the present study is to revise and validate the psychometric properties of the Emotional Climate Scale for Couples (ECSC).

Methods: This study was descriptive-correlational in nature and had practical implications. It was conducted from January 17th to July 30th, 2023. All divorce applicants referred by the courts to family counseling centers were included in the study population. Initially, the FEAQ was extracted from the website and modified to consist of 21 questions related to emotional climate between couples.

Results: Subsequently, the face validity of ECSC was confirmed by experts, and exploratory factor analysis (N=307) demonstrated two subscales of lack of feelings and cooperation, and **forced with limitations**, explaining 63.26% of the variance in the 21 ECSC items. Confirmatory factor analysis (N=205) also indicated an acceptable fit for the ECSC model and showed good construct validity. The test-retest reliability (N=35, with a three-week interval) was 0.83 for the total scale, 0.82 and 0.81 for the two subscales, respectively, while Cronbach's alpha coefficients for the two factors were 0.93 to 0.94 and 0.96 for the total scale.

Conclusion: Therefore, ECSC is a reliable and valid tool for assessing the emotional climate between couples and has wide applicability.

Keywords: psychometrics, family, expressed emotion, divorce

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[DOI: 10.18502/jsbch.v8i2.16974]

Introduction

Marriage is a mutual and complicated relationship between a man and a woman, which plays a significant role in improving the psychological, physical, and emotional needs of the couple (Moayed et al., 2018). The relationship between spouses can be a source of peace, support, and enjoyment for them, but in some cases, it may also be a source of worry, despair, and dissatisfaction for the couple (Frost & LeBlanc, 2023). To create and maintain a satisfying relationship between spouses, it is necessary for them to have a good understanding of each other and the ability to understand and accept each other's emotions (Shahmardi et al., 2021). However, the emotional climate of the couple in the family depends on the circumstances and situations, and the way it functions may differ from other families (Nejad et al., 2022). Despite this, the emotional atmosphere is shaped by comparable elements, such as the dynamics between family members, their attitudes and perceptions of one another, their emotions and interests, the extent of involvement in family activities, the presence of either cooperation or competition within the family, and the overall quality of relationships among family members (Amanelahi et al., 2023; Santos et al., 2023).

In a positive emotional environment, children learn to express their emotions and build close relationships with family members as they grow (Alonso-Tapia & Nieto, 2019; Bodovski & Youn, 2010). When spouses maintain warm, intimate, and conflict-free relationships, they foster a balanced and harmonious life for their children, who naturally benefit from this stability. On the other hand, when the emotional atmosphere between spouses is cold, dismissive, and lacks respect, conflict levels tend to rise, creating an environment of tension and anxiety for the children (Neckel & Hasenfratz, 2021; Nejad et al., 2022). Therefore, the emotional climate can be described as "a range of emotions generated through social interactions among group members within a specific environment" (Vandekerkhof et al., 2022). A key component of the emotional climate is how emotions and feelings are expressed between partners (Huerta et al., 2023; Wiebe & Johnson, 2016). Emotional regulation, the ability to manage and respond to emotional experiences, allows individuals to adjust the expression of their emotions and feelings effectively (Todorov et al., 2023; Vandekerkhof et al., 2022). The emotional climate between partners in each family can be measured using reliable questionnaires such as the Hillburn's Family Emotional Climate Scale (HFECS) (Fakharian et al., 2020). Additionally, a practical questionnaire among divorce applicants in Iran is mentioned in this study.

Based on what has been mentioned, the emotional climate between couples is the fundamental foundation for establishing a connection between them and controlling their behavior and emotions. It is expected that this emotional climate include respect, acceptance of each other, independence, responsibility, and cooperation. The main idea is also that couples, using an appropriate emotional climate, can not only prevent divorce but also raise their children in a healthy and positive environment and protect them from harm. However, if the emotional climate between couples is characterized by distance, coercion, or a lack of intimacy, it may lead to emotional, behavioral, and even criminal problems for them and even their children. In Iran, FEAQ is widely used in family courts, counseling centers, and research studies to assess the state of relationships between couples. Unfortunately, some of the content and questions in the FEAQ are outdated compared to the style of today's society, and some of its questions are not relevant to the subject of the emotional climate between couples. On the other hand, FEAQ lacks reliable and valid psychometric properties. Therefore, the aim of this research was to examine the psychometric properties of Emotional Climate Scale for Couples (ECSC) in Iranian divorce applicants in order to provide a standardized and practical questionnaire to the scientific community.

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Methods

Research Design

This study was a descriptive-correlational study. It was conducted cross-sectionally from January 17, to July 30, 2023. Initially, a 35-item scale of Persian Family Emotional Climate was taken from the website and modified to a 21-item questionnaire on the emotional climate of couples by the research team. Then, the modified scale was compared to the original version by experts. After making some practical modifications to the questionnaire, it was translated into English and the questionnaire items were reviewed and confirmed by the relevant experts.

Research implementation

The target population of this study consisted of all men and women seeking divorce in Iran (Yazd) in 2023, who were referred to the family counseling centers by the courts for consultation and family disputes. Considering the existence of 8 specialized marriage and family counseling centers, four counseling centers were randomly selected for sampling. Prior to the start of counseling sessions, all divorce applicants who attended the relevant centers were invited to participate in the study project. As the study employed purposive sampling, only those who consented to participate were initially interviewed. The inclusion criteria for the study were: 1) individuals who had been married for at least one year, 2) were aged between 18 and 50, 3) possessed at least secondary education, 4) Experienced severe marital conflicts and family problems for more than three months, and 5) and completed the questionnaires before starting the family counseling sessions. The exclusion criteria included: 1) inability to complete the questionnaire due to physical conditions, and 2) and lack of voluntary consent to participate in the research.

Population Characteristics

Since the present study is a psychometric study for designing and standardizing a questionnaire, the sample size was collected in three separate sections. The first phase included 307 applicants who were selected for exploratory factor analysis (EFA). It should be noted that in order to construct a questionnaire, 5 individuals are required for each question in the sample (Habibpour-Gatabi & Safari, 2016). Since the minimum sample size for exploratory factor analysis was 300, the authors chose this sample size in consideration of the possibility of non-responses from some participants (Habibi & Kolahi, 2022). The second phase included 205 participants, since the sample size for confirmatory factor analysis was 200. There was no need to repeat the references of Habibi and Kolahi (2022). In the third phase, for assessing the reliability of retest, 35 applicants were examined within a three-week time frame.

Data collection tools

For this study, data collection included a demographic information form two questionnaires.

A- Demographic form: It includes population demographic information such as age, education level, economic status, marital status, duration of marital life, etc.

B- Family Emotional Atmosphere Questionnaire (FEAQ): This questionnaire was developed by Mahmoud Navardgahfard in 1994 and consists of 35 items on a 5-point Likert scale. Participants indicated the status of their family for each question by selecting one of the options (Abdolmaleki et al., 2017). For example, when they marked the option "very much", it demonstrated that this situation existed completely in their family. Participants respond to each item on a 5-point scale (never=1 to very much=5). The score range of the test is between 35 and 175. A lower score in this test indicates a more favorable family emotional atmosphere, and a higher score suggests an unfavorable family atmosphere. The alpha coefficient of this questionnaire is 0.89 (Navardgahfard, 1994).

C- The Family Awareness Scale (FAS): This scale was developed by Closson and Green in 1985 to assess family competency. This scale consists of 14 statements designed to evaluate family

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capability according to the Beavers-Timberlawn Family Competence Model and is divided into two sections. The first section contains two questions in which the participant must specify which statement best describes their family. In the second section of the scale, which consists of 12 questions, the participant must indicate the extent to which each statement applies to their family using a 9-point Likert scale. The higher the scores obtained by the individual, the greater the perceived family competency. The alpha coefficient of this questionnaire in Iran is reported to be 0.78 (Green et al., 1985).

D- Emotional Divorce Scale (EDS): This scale was developed by Mohammadi et al. (2015) in Iran to assess emotional divorce among couples. The questionnaire includes 36 statements divided into 9 subscales, with each subscale comprising 4 statements rated on a Likert scale. Participants respond to each item on a scale from 0 (never) to 4 (always). The total possible score ranges from 0 to 36, with higher scores reflecting a greater degree of emotional divorce. A total score above 18 (on average) for the entire questionnaire and above 2 (on average) for each variable indicates a higher level of emotional divorce. The Cronbach's alpha for the overall scale was reported at 0.84, while the subscales ranged from 0.83 to 0.85 (Mohammadi et al., 2017).

Data analysis was conducted on a descriptive level, with means (M), standard deviations (SD) and percents (%) reported. At an inferential level, the software SPSS-21 was used, taking into account the normality of the data and using a significance level of 0.05. Pearson correlation coefficient, Cronbach's alpha coefficient, and exploratory factor analysis (EFA) were used. Additionally, the software LISREL-8.80 was used for confirmatory factor analysis (CFA) to examine the psychometric indices.

Results

In one section, the mean and standard deviation of the age of these 307 individuals were 37.73± 11.49, with 53% of them being females. In addition, 51.8% of the participants were self-employed, and 53.7% had a bachelor's degree as their highest educational level. In the second section, the mean and standard deviation of age for these individuals were 38.81± 12.08, with 50.2% of them being males. Furthermore, the most frequent occupation among the participants was self-employment with 60% and the most frequent level of education was a bachelor's degree with 53.7% (Table 1).

Table 1. Demographic characteristics of participants in three sections

Variable	Classification	Section 1= 307		Section 2= 205		Section 3 =35	
		N	%	N	%	N	%
Age	20- 30	97	31.6	60	29.3	12	34.3
	31- 40	114	37.1	72	35.1	17	48.6
	41- 50	50	16.3	36	17.6	6	17.1
	> 50	46	15	37	18	-	-
Gender	Male	143	46.6	103	50.2	16	45.7
	Female	164	53.4	102	49.8	19	54.3
Job	Housewife	99	32.2	40	19.5	5	14.3
	Worker	21	6.8	20	9.8	12	34.3
	Self-employment	159	51.8	123	60	18	51.4
	Pensioner	28	9.1	22	10.7	-	-
Education level	Below highschool diploma	16	5.2	14	6.8	8	22.8
	Highschool diploma	88	28.7	54	26.3	12	34.3
	Bachelor's degree	165	53.7	110	53.7	10	28.6
	Master's degree and higher	38	12.4	27	13.2	5	14.3

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A total of four forms of validity, including face validity, factor analysis, correlation between subscales, and concurrent validity, were used to evaluate ECSC's validity. Additionally, the reliability of this scale was obtained through internal consistency, stability, and inter-rater reliability, which are reported below.

Face Validity of ECSC

Before assessing face validity of ECSC scale, an item analysis was conducted. This involved calculating statistical features such as the mean and standard deviation for each question, the item-total correlation coefficient (i.e., the correlation between each question and the overall score of the 21-item scale), and the Cronbach's alpha coefficient for each item. The item-total correlation coefficients revealed that all questions demonstrated an acceptable correlation with the overall test score, indicating that each item contributed meaningfully to the overall assessment (correlation coefficient above 0.5). Therefore, all questions were retained in the study. The overall Cronbach's alpha coefficient for ECSC with 21 items was calculated as 0.96. In the next step of face validity, the questionnaire prepared was given to 10 psychologists and counselors, and they were asked to provide their opinions on the clarity of the expression used in the questions and the appearance of the questionnaire. Necessary revisions were made after receiving their feedback, and the questionnaire was again provided to them. Finally, the face validity of the questionnaire was confirmed by the mentioned individuals.

Investigating the Factor Structure of ECSC

Initially, EFA method was used with a sample size of 307 individuals to investigate the factor structure of ECSC. Based on the theoretical structure of this scale, the number of extracted factors, eigenvalues, and the percentage of variance explained were decided in order to use the principal component analysis method with varimax rotation at the item level. The results of the Kaiser-Meyer-Olkin (KMO) sampling adequacy test yielded a value of 0.95, and the Bartlett's test was significant ($P < 0.001$, chi-square = 28.53, df = 210). These results indicated the adequacy of the sample size, the ability of the scale items to be factors, and the sufficiency of conducting factor analysis.

The scree plot (Figure 1) indicated that there were two extractable factors with eigenvalues greater than one. The range of shared variance was 0.57 to 0.68. Overall, these two factors explained 63.26% of the variance in the 21 -item questionnaire.

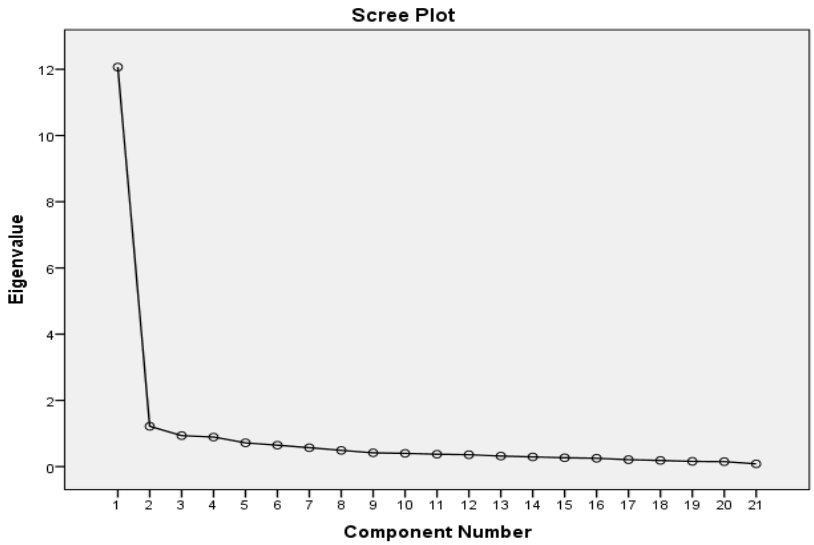


Figure 1. Scree plot for range factor and determining the sub-scales of ECSC

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Table 2 shows the factor loads, eigenvalues, and the percentage of explained variance. The data in this table indicate that all factor loads were greater than 0.40. Some questions also had two factors; in these cases, the question belonging to the factor with the highest factor load was considered. Furthermore, the review of the factor loads of the questions with their corresponding factor indicated that there was not a significant overlap between the two factors in terms of items. Based on this, the factors were as follows:

The factor ,Lack of Feelings and Cooperation (LFC), which explained the ECSC the most, included questions 4, 8, 11, 13, 16, 17, 18, 19, 20, and 21 with an eigenvalue of 12.06 and explained variance of 57.46%.

The factor of Forced with Limitations (FL), which was the second factor explaining ECSC, included questions 1, 2, 3, 5, 6, 7, 9, 10, 12, 14, and 15 with an eigenvalue of 1.22 and explained variance of 5.8%(Figure 1).

Table 2. Results of confirmatory and explanatory factor analysis with different sample sizes

	Exploratory factor analysis (N=307)				Confirmatory factor analysis (N=205)	
Subscale and items	**Factor load**	**Eigenvalues**	**% of Variance**	**Cumulative %**	**Standardized solution**	**T-value**
Lack of feelings and cooperation (LFC)	-				0.88	5.89
4	0.67				0.47	-
8	0.69				0.70	5.71
11	0.78				0.60	5.22
13	0.64				0.42	4.78
16	0.68	12.06	57.46	57.46	0.50	4.97
17	0.45				0.45	5.12
18	0.60				0.41	4.75
19	0.73				0.44	4.85
20	0.78				0.45	4.87
21	0.80				0.60	5.22
Forced with limitations (FL)	-				0.91	5.95
1	0.61				0.46	-
2	0.60				0.39	4.70
3	0.69				0.45	4.87
5	0.69				0.44	4.85
6	0.68				0.50	4.97
7	0.64	1.22	5.80	63.26	0.41	4.75
9	0.73				0.42	4.78
10	0.62				0.47	4.91
12	0.77				0.39	4.70
14	0.75				0.55	5.12
15	0.61				0.40	4.73

In continuation, thw authors attempted to determine whether there was compatibility between the measured factors and what was expected based on the research and theoretical model. Therefore, in order to examine the fit of the ECSC factor structure, second-order confirmatory factor analysis was used with maximum likelihood estimation (ML) at the matrix variance-covariance level with a sample size of 205 individuals. The results of the model fit evaluation analysis showed a chi-square value of 536.96 (df=187, P<0.001), which was smaller than 3 which was considered suitable. The low value of this index indicated a small difference between the research structural

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model and the observed data of the study. Additionally, the value of RMSEA=0.076 was lower than 0.08 (Figure 2). On the other hand, the values of the model's fit indices (NFI=0.93, NNFI=0.94, CFI=0.94, IFI=0.94, GFI=0.92, AGFI=0.90) were greater than 0.90, indicating a good fit in the model. Overall, considering the obtained fit indices and the numbers in Table 2, which included standardized coefficients and the t-value from the confirmatory factor analysis, the confirmatory model had an acceptable fit and the validity of the ECSC structure was confirmed in couples using confirmatory factor analysis.

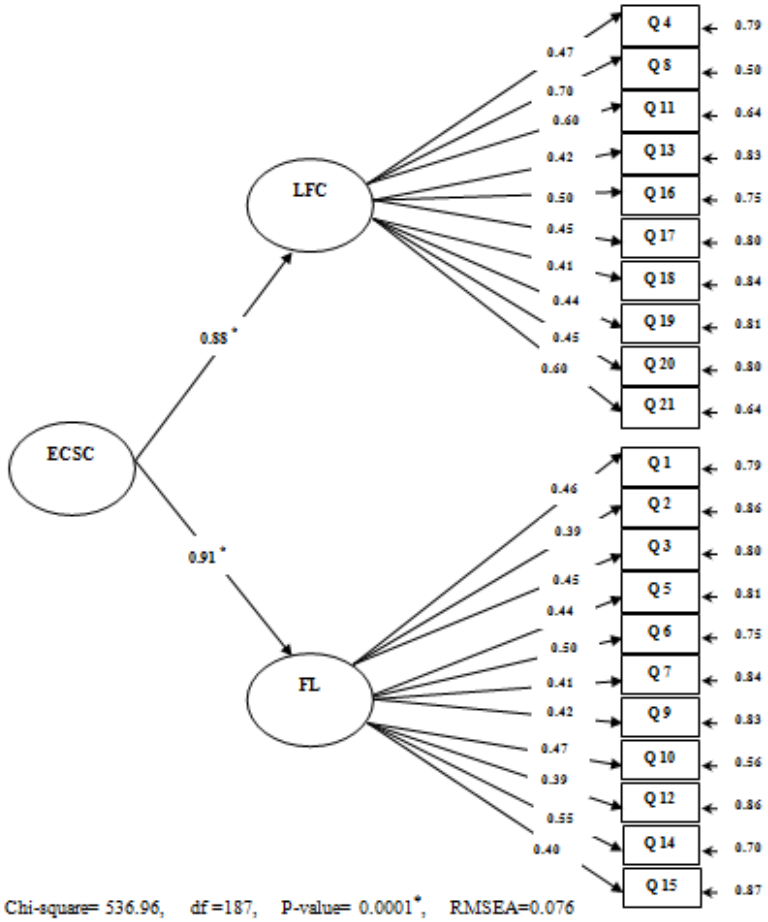


Figure 2. The model of factor analysis for determining the sub-scales of ECSC

Validity of the subscales and concurrent validity of ECSC

Continuing with the consideration of the large sample size (N=307) and the normality of the data, Pearson correlation was used to assess the internal validity of the test (correlation among the subscales) and the convergent validity (correlation with related measures). Table 3 presents the means and standard deviations of ECSC and the scales of family awareness and emotional divorce, as well as the correlation matrix between them.

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Table 3. The correlation matrix between the ECSC with family awareness and emotional divorce

Variables	Mean	Standard deviation	1	2	3	4	5
1. LFC	15.75	8.50	-	0.84*	0.95*	-0.74*	0.89*
2. FL	22.68	11		-	0.97*	-0.70*	0.80*
3. ECSC	38.34	18.72			-	-0.75*	0.87*
4. Family awareness	76.39	18.22				-	-0.74*
5. Emotional divorce	31.68	29.21					-

* P < 0.001

The results in Table 3 demonstrate excellent relationships between ECSC and the two subscales of lack of affection and cooperation, and forced coexistence with restrictions (P<0.001). Therefore, the pattern of correlation coefficients between the subscales indicated good internal relationships among them, and most importantly, each subscale had a significant and acceptable positive relationship with the total ECSC score. On the other hand, significant relationships were found between ECSC and its subscales with family awareness and emotional divorce (P<0.001). Therefore, the concurrent validity of ECSC was also confirmed.

Reliability of ECSC

In the present study, reliability of ECSC was examined using three methods: internal consistency (using Cronbach's alpha), stability (using test-retest method), and inter-rater reliability (using intra-class correlation). The results of Cronbach's alpha and intra-class correlation with a sample size of 307 individuals showed that the reliability coefficient of ECSC was 0.96 (95% CI: 0.95-0.97), indicating good internal consistency and inter-rater reliability for ECSC.

Table 4. Cronbach's alpha coefficient, intra-class correlation coefficient, and test–retest of ECSC

Variable	Cronbach's alpha (N= 307)	Intra-class Correlation Coefficient (N= 307)	Test-retest (N= 35)
LFC	0.93	0.92- 0.94	0.82
FL	0.94	0.93- 0.95	0.81
ECSC	0.96	0.95- 0.97	0.83

In order to assess the reliability through retest method, a separate study was conducted where 35 divorce applicants were asked to respond to the ECSC. After a four-week interval, these individuals were again asked to respond to the ECSC. The correlation between the scores obtained from the two administrations was calculated using Pearson correlation coefficient. The results showed that the overall test-retest reliability coefficient of ECSC was 0.83, and for the subscales of lack of affection and cooperation it was 0.82, and for coercion with constraint it was 0.81. Therefore, ECSC also had good stability and reliability.

ECSC Scoring Procedure

In ECSC, each item was scored on a five-point Likert scale. The options of never=1, rarely=2, sometimes=3, often=4, and always=5 were provided for each item. Therefore, in ECSC, the minimum score was 21 and the maximum score was 105, where higher scores indicated a high level of dissatisfaction. It should be noted that scores between 21 and41 indicated high satisfaction, scores between 42-62 indicated moderate satisfaction, scores between 63-83 indicated dissatisfaction, and scores between 84-105 indicated high dissatisfaction.

Discussion

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The present study was conducted to investigate the psychometric properties of the ECSC questionnaire in divorce applicants. The emotional bond between parents was influenced by their educational and upbringing goals, as well as their history of interactions with their children (Fitzgerald et al., 2020). These emotional connections continue throughout the middle age period (Jones et al., 2018). These connections form the basis of the parent-child relationship and parental attitudes and children's understanding of parental behaviors (Kapetanovic & Skoog, 2021; Lansford et al., 2018). If the family's emotional atmosphere is positive, parenting strategies may have positive effects on children (Kapetanovic et al., 2019). Conversely, if the emotional atmosphere is negative, parenting strategies may have less impact or even lead to harm in the developmental outcomes of children (Darling & Steinberg, 2017; Kapetanovic & Skoog, 2021). The results of the validity examination showed that ,initially, the face validity of the ECSC‘s 21 items was confirmed by psychologists and counselors. Furthermore, the results of the factor analysis showed that the ECSC had an acceptable fit and two sub-scales, namely lack of affection and cooperation and coercion with limitation, which explained 63.26% of the variance of the ECSC. The pattern of correlation coefficients between the sub-scales indicated a significant and acceptable positive relationship with the total score of the ECSC. Concurrent validity also showed a significant relationship between the ECSC and its sub-scales with family awareness and emotional divorce. Therefore, it can be said that ECSC possesses good validity in Iranian population. In 1964, HFECS was developed by Hillburne, consisting of 16 questions and 8 sub-scales: affection, cuddling, validation, shared experiences, gift giving, encouragement, trust, and sense of security (Fakharian et al., 2020). The face validity of this questionnaire was confirmed in Iran by several academicians and experts (Moghadam et al., 2022).

At the base of ECSC, the overall test-retest reliability coefficient was 0.83, and for the subscales of lack of feeling, collaboration, and forced compliance, it was 0.82 and 0.81, respectively. Additionally, the Cronbach's alpha coefficient for the overall ECSC scale was 0.96, and for its two subscales, it was 0.93 and 0.94. Therefore, ECSC possessed good inter-rater reliability, internal consistency, and stability in Iranian population. In Moghadam et al.'s study (Moghadam et al., 2022), the reliability of HFECS was 0.92 for the overall scale and ranged from 0.61 to 0.78 for its subscales, indicating internal consistency of the questionnaire items. However, the overall Cronbach's alpha coefficient for the Iranian FEAQ scale was 0.89 (Navardgahfard, 1994).

Based on this research, it can be concluded that ECSC had formal and structural validity. In exploratory factor analysis, two subscales of lack of emotion and collusion and coercion were identified, which explained about 63% of the variance of the ECSC‘s 21 items. Regarding reliability, the results of retest and Cronbach's alpha coefficient indicated that ECSC can be continuously and reliably used to assess the emotional atmosphere between couples. Therefore, this assessment tool was valid and reliable, and could be used in research and various applications. It should be noted that some strengths of this research included the use of different population samples for each data analysis section, the inclusion of an appropriate sample size, obtaining informed consent for participation in the study, and employing precise statistical analyses. However, some of the main limitations of this study included the exclusion of applicants from other cities in Iran, the lack of content validity, and the absence of comparison of research results between men and women.

Conclusion

The validity and reliability of the ECSC questionnaire in Iran has shown that it has credibility and satisfactory consistency, as confirmed by experts, and it is an efficient tool for evaluating the emotional climate between couples.

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Therefore, this effective and efficient questionnaire can be used in family courts, counseling centers, universities, and scientific research. It is suggested that this questionnaire be evaluated and normalized in other countries around the world in studies that compare the level of emotional climate between men and women.

Acknowledgement

This paper is part of a research project approved by the Deputy of Research at Shahid Sadoughi University of Medical Sciences, under the ethics code IR.SSU.SPH.REC.1402.029. The authors would like to extend their appreciation to the university and the participants of the study for their valuable contributions.

Conflict of interest

The researchers declared no conflict of interest.

Funding

This research was funded by Shahid Sadoughi University of Medical Sciences, Yazd, Iran.

Ethical considerations

The ethics committee of Shahid Sadoughi University of Medical Sciences in Yazd has approved the current study. The research objectives were explained to the officials of counseling centers as well as divorce applicants, and they were asked to fill out the questionnaires. They were also given the assurance that their information would be kept confidential and securely stored.

Code of ethics

IR.SSU.SPH.REC.1402.029

Authors' Contributions

M.H.S. conceived the idea presented in this paper. P.S.and N.A. developed the theory and performed the calculations. M.H.S. and S.Q. and N.A. validated the analytical methods. P.S. and M.H.S. and A.N. were involved in the investigation of [a specific aspect] and supervised the findings of this study. Sh.E.H contributed to the final version of the manuscript, with critical feedback and helped shape the analysis and manuscript. All authors discussed the results and contributed to the final manuscript.

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Appendix

مقیاس فارسی جو عاطفی بین زوجین

عبارات	هر گز	کم	گاهی وقت‌ها	زیاد	خیلی زیاد
۱. همسرم مرا درک نمی‌کند.	۱	۲	۳	۴	۵
۲. همسرم در انجام امور شخصی به من آزادی نمی‌دهد.	۱	۲	۳	۴	۵
۳. همسرم اغلب به جای من تصمیم می‌گیرد.	۱	۲	۳	۴	۵
۴. همسرم به من اعتماد ندارد.	۱	۲	۳	۴	۵
۵. همسرم به من اجازه نمی‌دهند با دوستانم رابطه داشته باشم.	۱	۲	۳	۴	۵
۶. همسرم بین من و سایر اعضای خانواده‌اش (برادر یا خواهر) تبعیض قائل می‌شود.	۱	۲	۳	۴	۵
۷. همسرم در کارهای من دخالت می‌کند.	۱	۲	۳	۴	۵
۸. همسرم با من مثل بچه‌ها رفتار می‌کند.	۱	۲	۳	۴	۵
۹. همسرم من را وادار به اطاعت از خودش می‌کند.	۱	۲	۳	۴	۵
۱۰. همسرم در خانه به من فرصت اظهار نمی‌دهد.	۱	۲	۳	۴	۵
۱۱. همسرم به من دروغ می‌گوید.	۱	۲	۳	۴	۵
۱۲. همسرم از من توقع بیش از حد دارد.	۱	۲	۳	۴	۵
۱۳. همسرم احساسات من را نادیده می‌گیرد.	۱	۲	۳	۴	۵
۱۴. در خانه مجبور به انجام اموری هستم که دوست ندارم.	۱	۲	۳	۴	۵
۱۵. همسرم من را مورد انتقاد شدید خودش قرار می‌گیرم.	۱	۲	۳	۴	۵
۱۶. بین من و همسرم همکاری و کمک وجود ندارد.	۱	۲	۳	۴	۵
۱۷. نمی‌توانم مسائلم را در خانه با همسرم مطرح کنم.	۱	۲	۳	۴	۵
۱۸. در خانه مورد تحقیر و تمسخر همسرم قرار می‌گیرم.	۱	۲	۳	۴	۵
۱۹. فکر می‌کنم همسرم مرا دوست ندارد.	۱	۲	۳	۴	۵
۲۰. آرزو می‌کنم همسر دیگری داشته باشم.	۱	۲	۳	۴	۵
۲۱. دوست دارم به دور از همسرم، در مکانی دیگر زندگی کنم.	۱	۲	۳	۴	۵

سؤالات خرده مقیاس‌ها: عدم احساس و همکاری (۴، ۸، ۱۱، ۱۳، ۱۶، ۱۷، ۱۸، ۱۹، ۲۰، ۲۱) و اجبار همراه با محدودیت (۱، ۲، ۳، ۵، ۶، ۷، ۹، ۱۰، ۱۲، ۱۴، ۱۵

روش نمره‌گذاری: بر اساس لیکرت پنج درجه‌ای و نحوه امتیازبندی با انتخاب گزینهٔ هرگز= ۱؛ کم= ۲، گاهی وقت‌ها= ۳، زیاد= ۴ و خیلی زیاد= ۵

دامنهٔ نمرات:

- نمرات بین ۲۱ تا ۴۱ نشان‌دهندهٔ میزان جو عاطفی دارای رضایت بالا است.
- نمرات بین ۴۲ تا ۶۲ نشان‌دهندهٔ جو عاطفی با رضایت متوسط است.
- نمرات بین ۶۳ تا ۸۳ نشان‌دهندهٔ جو عاطفی ناراضی است.
- نمرات بین ۸۴ تا ۱۰۵ نشان‌دهندهٔ جو عاطفی خیلی ناراضی است.

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Emotional Climate Scale for Couples (ECSC)

Items	Never	Rarely	Sometimes	Often	Always
1. My spouse doesn't understand me.	1	2	3	4	5
2. My spouse doesn't give me freedom in personal matters.	1	2	3	4	5
3. My spouse often makes decisions instead of me.	1	2	3	4	5
4. My spouse doesn't trust me.	1	2	3	4	5
5. My spouse doesn't allow me to have relationships with my friends.	1	2	3	4	5
6. My spouse discriminates between me and other family members (siblings).	1	2	3	4	5
7. My spouse interferes with my work.	1	2	3	4	5
8. My spouse behaves with me like a child.	1	2	3	4	5
9. My spouse forces me to obey them.	1	2	3	4	5
10. My spouse doesn't give me a chance to express myself at home.	1	2	3	4	5
11. My spouse lies to me.	1	2	3	4	5
12. My spouse expects too much from me.	1	2	3	4	5
13. My spouse ignores my emotions.	1	2	3	4	5
14. I am forced to do things at home that I don't like.	1	2	3	4	5
15. My spouse criticizes me severely.	1	2	3	4	5
16. There is no cooperation and support between me and my spouse.	1	2	3	4	5
17. I can't discuss my problems with my spouse at home.	1	2	3	4	5
18. I am humiliated and mocked by my spouse at home.	1	2	3	4	5
19. I think my spouse doesn't love me.	1	2	3	4	5
20. I wish I had another spouse.	1	2	3	4	5
21. I want to live in a different place away from my spouse.	1	2	3	4	5

Subscale questions: Lack of feeling and cooperation (items 4, 8, 11, 13, 16, 17, 18, 19, 20, 21) and forced with limitations (items 1, 2, 3, 5, 6, 7, 9, 10, 12, 14, 15).

Scoring method: Based on a five-point Likert scale, with scoring as follows: Never = 1; Rarely = 2; Sometimes = 3; Often = 4; and Always = 5.

Score range:

- Scores from 21 to 41 indicate a high level of emotional satisfaction.
- Scores from 42 to 62 indicate average level of emotional satisfaction.
- Scores from 63 to 83 indicate dissatisfaction with the emotional climate.
- Scores from 84 to 105 indicate high dissatisfaction with the emotional climate.

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