


Original Article

Prediction of domestic violence according to cognitive emotion regulation and early maladaptive schemas of couples

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Abstract

Background: Domestic violence causes the family institution to turn into a tense, stressful, cold and soulless environment. The current study was handled to the aim of predicting domestic violence according to cognitive emotion regulation (CER) and early maladaptive schemas (EMS) in couples.

Methods: The present study was a descriptive correlational Research, which was carried out on couples with domestic violence problems referring to counseling centers in Tehran, 2021. The number of 400 people was selected as samples through convenience sampling among those who were referred to counseling centers. The research tools included the questionnaire of Haj-Yahia violence against women, Garfenski et al.'s cognitive regulation of emotion, and Young's early maladaptive schemas. Data analysis was done using SPSS 21 software, Pearson's correlation coefficient and analysis of regression.

Results: The findings revealed that domestic violence has a significant and inverse correlation with CER, and a direct and significant correlation with EMSs ($P < 0.001$). Domestic violence was predictable based on CER ($B = -0.411$, $P = 0.001$) and EMSs ($B = 0.372$, $P = 0.001$).

Conclusion: According to the results, CER and EMSs were able to reduce and increase domestic violence in couples, respectively. It is suggested to pay attention to the CER and EMSs of couples and supply the required teaching in this regard.

Keywords: Cognition; Domestic violence; Early maladaptive schema; Emotion regulation.

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Introduction

Domestic violence, as one of the social and family problems, refers to the abuse of one of the family

members, mostly the women vexation, which causes her injury or pain and is commonly seen in three forms: physical,

psychological and sexual (1). In general, violence against women includes a widerange of actions, including murder, sexual assault, emotional abuse, beating, cursing and humiliation (2). The World Health Organization (WHO) considers violence to include behavior that causes physical, sexual, or psychological abuse by an intimate spouse or ex-life partner and includes sexual, physical aggression, and coercion (3). In addition, research shows that domestic violence has increased during the Covid-19, particularly against women (4). Domestic violence has affected the health of more than a third of all women in the world (5). In Iran, in a research conducted on domestic violence in 28 provincial capitals of the country, physical violence has been identified as the most specific type of violence in which the body of the victim is targeted (6). Domestic violence can occur between men and women bilaterally and lead to many physical and psychological consequences (7).

It seems that domestic violence is influenced by several psychological factors, including the cognitive emotion regulation (CER) and early maladaptive schemas (EMSs). CER includes processes through which people can influence what emotions they have and when/how experience and express it (8), and includes a wide range of the cognitive processes of conscious and unconscious (9). People, who cannot manage their emotions correctly in front of everyday happenings have internalizing disorders, such as anger, anxiety and depression (10). Previous studies have shown the relationship between CER and domestic violence. For example, Ebrahimi and Almasi (11) showed that the CER has a significant negative relationship with domestic violence, and the training of CER helps reduce domestic violence.

EMSs also include cognitive and emotional patterns of self-harm that are moulded in the mind at the beginning of growth and development and are repeated throughout

lifecycle. It can be said that the schemas arise in response to behavioral, emotional, and cognitive patterns that make people vulnerable to various mental disorders (12). EMSs are valid representations of unpleasant childhood experiences and are defined as broad, and dysfunctional patterns that include memories, emotions, thoughts, and physical sensations about the self and associations with others (13). Ghadimi et al. (14) stated that men's domestic violence against wives is predictable based on EMSs. Also, from the view point of Jackson (15), violence is one of the coping strategies that a person uses to avoid the influence of the incompatible schema that has been provoked. Yang et al. (16) emphasized that domestic violence can be influenced by EMSs. Also, Holt (17) found that EMSs such as rejection and cut, and defects and shame during childhood lead to misbehavior and lead to violent behavior in adulthood. Domestic violence can destroy the foundation of the family and cause many problems for the family system. Therefore, studying the variables related to it can be very important. In addition, studies have shown that domestic violence is related to the variables of CER and the EMSs (11, 13, 17), but so far no research has been done to predict domestic violence based on the CER and the EMSs of couples. Therefore, this study was handled to the aim of predicting domestic violence based on the CER and the EMSs of couples.

Methods

This applied correlational research was carried out on couples with domestic violence referring to counseling centers in Tehran in the second half of 2021. Sampling of the research was convenience method, so that 15 counseling centers were randomly selected as study centers from among the areas with counseling centers in Tehran. In this study, 500 people were selected from the people who referred for domestic violence and among them 400 people who had the conditions to

participate in the research were selected as the research sample.

Inclusion criteria included the age range of 30 to 50 years, having a history of violence in counseling centers, and at least primary education.

Exclusion criteria included non-cooperation and scribbles of questionnaires.

At the beginning of the study, the researcher gave necessary explanations to the subjects about the objectives of the research and how to answer the questionnaires; Informed consent was taken from people and they were also guaranteed the confidentiality and privacy. In this research, ethical considerations, respect for honesty and trustworthiness, respect for the rights of participants and their anonymity, and keeping the information of participants confidential were observed. Then, the questionnaires were distributed and collected among the participants in 15-minute intervals in order to control the effect of fatigue on the research results. In order to collect data, the following questionnaires were used.

Questionnaire of violence against women:

This questionnaire was created by Haj-Yahia in 1999. It has 32 items and measures 4 factors of mental, physical, sexual and economic violence. The internal reliability for four factors of mental, physical, sexual and economic violence by Cronbach's alpha coefficient were 0.71, 0.86, 0.93, 0.92 respectively (18). Scoring in the questionnaire is based on a 3-point Likert scale from 0 never to 2 twice or more, where the higher score in each of the factors indicates the higher score of the individual's violence. The Persian version of the questionnaire was validated by Ghadimi et al, its internal reliability coefficient was reported as 0.87 by using Cronbach's alpha (14). In this study, Cronbach's alpha was 0.89.

Cognitive Emotion Regulation Questionnaire (CERQ): The CERQ is a self-report tool that was developed by

Garnefski et al., (19). It has 36 items and consists of 9 subscales such as: cognitive strategy, acceptance, self-blame, positive refocusing, rumination, refocusing on planning, perspective-taking, positive reappraisal, and catastrophizing. The scoring of CERQ is on a 5-point Likert scale from 1 almost never to 5 almost always. The scores range for each subscale is between 4 and 20, and high scores show the greater level use of a person's strategy in dealing with stressful events (20). The reliability and validity of CERQ in Iranian culture was reported by Yousefi (21), from 0.82. In the current study, Cronbach's alpha of the questionnaire was also obtained from 0.74 to 0.83.

Early maladaptive schemas (EMSs) questionnaire:

The EMSs was created by Young and Brown, 1994 (22). It has 75 items and is used to measure 15 cognitive schemas including emotional deprivation, mistrust, abandonment, social isolation, failure, defect/shame, dependence/incompetence, vulnerability to harm or disease, undeveloped/trapped self, obedience, emotional inhibition, dedication/sacrifice, stubborn standards, entitlement and grandstanding, and inadequate self-restraint/ self-discipline. Each item in the questionnaire is scored on a 5-point Likert scale from 1 does not apply to me at all to 6 describes me exactly. The score of each person in each schema is obtained by summing the scores of the questions related to that schema, and a high score indicates the more colorful presence of maladaptive schemas. Waller et al., (23) reported the reliability of this scale 0.96 for the whole test and higher than 0.80 for the subscales using Cronbach's alpha. Moreover, Cronbach's alpha coefficient of its Persian version was reported by Ghiasi et al. (24) as 0.94. Here, Cronbach's alpha in the present study was 0.92 for the entire questionnaire.

Data analysis was done with the help of correlation coefficient test and regression analysis using the statistical software of SPSS version 21.

Result

The demographic characteristics of participants in the research were as follows: 150(37.5%) of people with the age group of 25-30 years, 125 (31.25%) 35-40 years, 80 (20%) 40-45 years, and 45 (25.11%) were 45-50 years old. The mean and standard deviation of the studied variables and their components was shown in Table 1.

Based on Table 2, the results of Kolmogorov Smirnov test indicated that the null hypothesis that the scores distribution of the research variables is normal remains. The correlation between the studied variables was checked, which is shown in Table 2. Domestic violence had an inverse and significant correlation with the CER and a direct and significant relationship with the EMSs ($P < 0.01$).

The results of the variance analysis of the prediction model of CER and EMSs in domestic violence are presented in Table 3. In the first step, the CER could explain 28% of domestic violence. In the second step, this amount reached 39% with the addition of the EMSs. Therefore, these variables are well able to predict domestic violence ($P < 0.05$).

The regression coefficients values of the prediction model of domestic violence are presented in Table 4. According to the results, at first, the CER was entered into the equation with a standard beta coefficient equal to -0.41. This indicates that with an increase of one standard deviation in the CER, domestic violence will decrease by 0.41 standard deviations ($P < 0.05$, $t = 5.76$).

Table 1. Mean and standard deviation of the research variables (n=400)

variable	component	Mean	Standard deviation
CER	Cognitive strategy	9.64	3.72
	Self-blame	8.83	3.92
	Acceptance	10.07	4.31
	Rumination	8.58	4
	Positive refocusing	8.67	3.69
	Refocusing on planning	9.71	3.57
	Positive reappraisal	9.51	3.27
	Perspective-taking	8.27	4.49
	Catastrophizing	8.79	3.58
	Total	8.31	4.68
EMSs	Emotional deprivation	11.25	4.44
	Abandonment	12.37	4.59
	Mistrust	13.33	4.24
	Social isolation	11.66	4.69
	Defect/Shame	9.5	4.07
	Failure	10.14	4.2
	Dependence/Incompetence	9.26	4.11
	Vulnerability to harm or disease	11.65	4.16
	Undeveloped/trapped self	10.5	3.91
	Obedience	10.51	4.28
	Dedication/sacrifice	12.69	4.27
	Emotional inhibition	12.99	4.67
	Stubborn standards	15.2	4.4
	Entitlement and grandstanding	14.16	4.26
	Self-restraint/ inadequate self-discipline	13.14	3.99
	Total	178.39	40.13
Domestic violence	Mental	18.09	7.15
	Physical	12.37	3.82
	Sexual	4.14	3.61
	Economic	1.65	1.27
Total		35.28	6.82

Table 2. The results of normality test and correlation matrix of research variables

Variable	Z value	P-value	1	2	3
1. CER	0.044	0.2	1	-0.371	-0.411
2. EMSs	0.036	0.2	-0.371	1	0.322
3. Domestic violence	0.037	0.2	-0.411	0.322	1

Afterwards, the maladaptive schema with the standard B coefficient equal to 0.372 was entered into the equation ($P < 0.05$, $t = 4.96$), which indicates a direct relationship between the two variables. Therefore, with an increase of one standard deviation in maladaptive schema, domestic violence increases by 0.37 standard deviations.

Discussion

The present study aimed to examine the prediction of domestic violence in couples based on CER and EMSs. The results showed that the domestic violence of couples can be predicted based on the CER, and also according to the results of the research, the more CER increases, the domestic violence decreases. The results of this research are in accordance with the results of Babaie (25), Calvet et al. (13), Holt (17). In the explanation of this finding, it can be said that according to the opinion of Garnefski and Kraaij (26), CER creates more control over the environment and finding different options in crisis situations. With the CER, all the components that

cause crisis situations including domestic violence can be controlled. People with high cognitive adjustment experience less stress and anxiety in critical situations and it is considered an effective component to control domestic violence. CER is actually emotion management and includes the processes of monitoring and changing emotional experiences (27). Emotions can cause a positive or negative reaction in people, in such a way that if they are appropriate to the situation and conditions, they cause a positive reaction and otherwise a negative reaction occurs, so when the emotions become intense or prolonged or if they are not compatible with the conditions, then it is necessary to adjust them (28); Therefore, people with defects in the CER lead to violent behaviors and also call for violent behaviors from their spouses (29). Usually, domestic violence is committed by people who do not have the ability to cognitively regulate their emotions and have a low ability to control when faced with negative emotions.

Table 3. Variance analysis of the predictive model of CER and EMSs in domestic violence

Variable	Model	The Sum of Squares	df	Mean Squares	F	P-value	R	R ²
CER	Regression	4156.27	1	4156.27	44.39	0.001	-0.411	0.278
	Residual	6658.74	398	720.16				
	the sum	10815.01	399					
EMSs	Regression	5842.88	2	2921.44	39.15	0.001	0.322	0.396
	Residual	7417.109	397	68.18				
	the sum	11014.99	399					

Table 4. Regression coefficients of domestic violence prediction model based on CER and EMSs

Variable		B	Standard deviation	Standard B	T	P-value
CER	Constant	99.43	4.508	-	9.76	0.001
	CER	-226.1	0.181	-0.411	5.34	0.001
EMSs	Constant	16.73	6.84	-	2.44	0.016
	CER	-0.954	0.173	-0.423	5.508	0.001
	EMSs	0.935	0.188	0.372	4.96	0.001

Such people's level of compromise with the environment has also decreased and this will cause them to be unable to control their emotions in crisis situations and resort to violence in crisis situations.

The results of this study showed that domestic violence can be predicted based on EMSs, and as the EMSs increase, domestic violence will also increase. The findings of the present study were in line with the results of Ebrahimi and Almasi (11), Ghadimi et al. (14), Yang et al., (16), and Andersen and Cyranowski (30). In its explanation, it can be said that the maladaptive nature of the schemas appears when people act in a way that their schemas are confirmed in their life process and in interaction with others, especially the marital relationship. Schemas related to marital relationships include basic beliefs about human nature and the way of relationships. When these schemas become concrete, they cause domestic violence in crisis situations. Young believes that many schemas, especially those that are mainly the result of childhood toxics, may be the core of personality complaints (31). Therefore, the appearance of EMSs will facilitate domestic violence. Schemas play a main role in thought, feeling, behaving and how to establish communication with others, and in a contradictory and inevitable way, they connect adult life to unfortunate childhood conditions, which are often harmful for people and in Communication with domestic violence can provide the basis for its creation.

Usually, couples use violence as a coping strategy to get rid of the negative effects of maladaptive schemas provoked in their relationships (32). The presence of EMSs predicts that individuals who were maltreated in childhood and will be violent toward their spouses and children in adulthood (12). The dysfunctional nature of schemas appears when a person acts in their daily life process and in their interactions with others in such a way that their schemas are confirmed, so that if a person reaches

his goals through domestic violence, he always uses it. EMSs and ineffectiveness through which people learn to cope with others are often the basis of long-term symptoms of complaints such as anxiety, depression, substance abuse, and psychophysical disorders, which in turn exacerbates domestic violence. Actually, in the direction of predicting domestic violence based on EMSs, it can be said that schemas are unsuccessful mechanisms that lead to psychological distress and can provide the basis for domestic violence in couple life.

Among the limitations of this study, the following can be mentioned: The impossibility of the participation of all couples with domestic violence problems in the research, as well as the limitation of this study sample to the Tehran city, has confined the generalizability of the results. Since the present study was unique to a specific geographical region, it is recommended to work on this concept in other societies as well.

Conclusions

According to the results, it is necessary to provide necessary training to couples in order to increase their ability in CER as well as controlling the EMSs. CER can reduce domestic violence; therefore therapists should pay attention to this. Moreover, in order to control domestic violence, therapists should provide them with the necessary information to moderate the negative influence of the EMSs.

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Authors' contribution

Study conception and design: Ghanbari A and Mohammadi A; data collection: Yazdani F and Taherkhani K; analysis and interpretation of results: Naderi Lordjani M; draft manuscript preparation: Ghanbari

A and Mohammadi A. All authors approved the final version of the manuscript.

Ethical considerations

In this study, questionnaires were filled with the people satisfaction and written consent was obtained from the participants.

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Conflicts of interest

The authors declare that there is no conflict of interest.

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