Published online 2017 September 16.

Research Article

Comparing Levels of Domestic Abuse and Emotional Regulation of Normal Women and Women Exposed to Violence

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Received 2016 June 22; Accepted 2017 February 10.

Abstract

Background: In recent decades, violent behavior towards women has been considered as the most serious social problem beyond cultural, social, and regional boundaries. This type of violence includes any violent sexual action which causes physical, sexual, or mental damage in women, leading to obligatory deprivation from individual or social freedom.

Objectives: The present study was aimed to examine levels of domestic abuse and emotional regulation in normal women and women exposed to violence.

Methods: This study is causal-comparative and of an after-event type. The statistical population of the present study consisted of two groups of women: exposed-to-violence women with background in conflict intervention and social emergency centers; and normal women in the second half of 2015. Statistical sample included 200 individuals (100 exposed-to-violence women and 100 normal women), who were selected using Convenience Sampling method; and they were examined and compared using questionnaires of domestic abuse and emotional regulation. All analytical actions were done using SPSS-ver20.

Results: Data analysis showed that there is a significant difference between exposed-to-violence women and normal women in terms of domestic abuse dimensions (emotional adjustment components) (P> 0.0001). The results of the multivariate analysis of variance showed that there is a significant difference between the two groups of women in terms of the three subscales of domestic abuse questionnaire (emotional, physical, and sexual misbehavior); and comparison of mean values showed that the degree of these dimensions in exposed-to-violence women is high.

Conclusions: Results showed that exposed-to-violence women experience more physical, sexual, and emotional domestic abuse. This can also be related to their differences in terms of emotional adjustment, which must be cared about by experts in order to give better service to these women and prevent social damage.

Keywords: Domestic Abuse, Emotional Adjustment, Exposed-to-Violence Women

1. Background

In recent decades, violent behavior towards women has been considered as the most serious social problem beyond cultural, social, and regional boundaries (1). This type of violence includes any violent sexual action which causes physical, sexual, or mental damage in women, leading to obligatory deprivation from individual or social freedom (2).

Violence includes a set of damaging intense behaviors and negative reactions such as indifference and lack of attention (3). Based on a report from America's Medical association, nearly five percent of women experience different types of violence in their families. Findings also show that in 8 out of every 13 marriages, women experience intense violence (4).

Family environment can be full of tension and exposed to damages for different reasons. Women are exposed to violence both in the society and in their families. They are

victims of different types of physical and mental violence, which lead to negative effects and consequences (5). Rose and Campbell (2000) have also stated that 45 percent of abusive men have been witness to violence from their fathers towards their mothers; and 66 percent of women have been witness to violence in their childhood. Domestic abuse is one of the dimensions of family violence, including misbehavior in close and intimate relationships, family violence, and violence towards spouse (6). Domestic abuse is a serious problem which passes cultural, social, and economic red lines among couples. It has a basic effect on mental and physical health (4). Domestic abuse also includes misbehavior in intimate relationships, family violence, and violence towards spouse. It can take different forms: physical, verbal, emotional, mental, sexual, and economic (7).

On the other hand, emotions play an important role in different aspects of life, such as adaptability to life changes and stressful events. Basically, emotions can be referred to

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as biological reactions to situations which are considered to be important and challenging situations. These biological reactions are accompanied by responses that we give to environmental events (8). Emotional regulation is a principle in evaluations and organization of adaptable behaviors as well as preventing negative emotions and inadaptable behaviors (8). The ability to successfully provide emotional discipline is related to a number of physical, social, and physiological health consequences (9); in contrast, it is assumed that inadequacies in emotional regulation are the factors of behavior and anxiety disorders (10).

On the other hand, research results show that individuals' capacity in effective regulation of emotions affects psychological, physical, and interpersonal happiness. Inadequate regulation of emotions such as anger and anxiety affect physical problems such as cardiovascular and intestinal/gastric diseases. Emotional regulation includes strategies which are used in order to reduce, increase or maintain emotional experiences (11). Strategies of emotional regulation are rooted in cognitive and social evolution of emotions. Incidence of malfunctioning in these strategies can play a dominating role in producing and maintaining emotional disorders. In fact, the concept of emotional regulation is very extensive and inclusive, comprising a broad range of conscious and unconscious physiological, behavioral, and psychological processes. Furthermore, strategies of emotional regulation are the focus of understanding both behavioral-emotional packages and negative emotional incidences (12, 13). Therefore, it can be said that in some respects, emotional regulation is similar to coping (14, 15). In general, it is assumed that emotional regulation is one of the main factors of well-being and successful activation (8), which plays an important role in adaptability to stressful events of life; and it might affect people's life events (16, 17).

In addition, studies show that women who experience violence from their husbands have reported more physical signs than women who have not had this experience (18). In addition to physical signs, psychological signs have also been reported: such as depression (19), anxiety, afterincident stress, suicide, and drug abuse, which stem from violence (20). These consequences might come from poor health conditions, unfavorable life quality, and overuse of health services (21). Generally, violence reduces women's capacity to participate in occupational, social, and family life (22, 23). It might lead to a considerable number of diseases and deaths among women in the age of fertility (24). Women exposed to violence from their husbands have reported more physical signs (18); in addition to physical signs, psychological signs such as depression, anxiety, after-incident stress, suicide, and drug and alcohol abuse have been reported, which stem from violence, leading to

diseases and deaths among women at the age of fertility (23). Examination of the level of domestic abuse and emotional regulation among exposed-to-violence women, and comparison of these women with normal women might be a suitable way to examine the efficiency of interventions related to women who are victims of violence (24).

2. Objectives

This research aimed to find an answer to the question, "Is there a difference between domestic abuse, emotional regulation, and dimensions of life quality among exposed-to-violence women and normal women?"

3. Methods

The present study was descriptive and of a casual-comparative type. It compared dimensions such as domestic abuse and emotional regulation in women who are exposed to violence and normal women.

3.1. Statistical Population, Sampling, and Sampling Method

The statistical population of exposed-to-violence women consisted of all the women visiting 123 centers and well-being conflict intervention centers of Rasht and suburban areas, in the first half of 2015. The statistical population of normal women consisted of all normal women of Rasht and suburban areas, who are in congruence with exposed-to-violence women in terms of demographic components (age, education, economic and social state). The sample of the present study included 200 individuals (100 exposed-to-violence women and 100 normal women). The sample of exposed-to-violence women was selected using convenience sampling method, and normal women were selected using purposeful sampling; the list of exposed-to-violence women was received from 123 center and well-being conflict centers of Rasht according to a permit obtained from social well-being organization. Because it was not possible to use simple, regulated, and stratified random sampling methods, we used a convenience sampling method in order to select the members of the sample. After selection of exposed-to-violence women, normal women were selected using judgmental sampling method: from normal women of Rasht and its suburban areas, who were most similar to exposed-to-violence women in terms of demographic features, 100 individuals were selected as the sample of normal people.

3.2. Measurement Tools

Domestic Abuse Questionnaire: domestic abuse questionnaire, which was designed by Ghahari et al. (2006) on criteria of identifying domestic abuse mentioned in psychological literature, examines sexual, physical, and emotional misbehavior (25). The items of this questionnaire are scored based on a 4-point Likert scale (never, sometimes, often, and always). Emotional misbehavior had 20 items, physical misbehavior had 10 items, and sexual misbehavior had 14 items; and their cut-off points are, respectively, 20, 10, and 14. Face validity of this questionnaire was approved by psychologists of Tehran's psychology institute. Reliability was calculated to be 92%, using Cronbach's Alpha. Reliability coefficient was reported to be 98%, using a retest method (26).

3.3. Emotional Regulation Questionnaire

This questionnaire (CERQ-R) was designed by Garnefski et al. (2001) in Hulland; it has two versions: English and Dutch. emotional regulation questionnaire is a multidimensional questionnaire which is used in order to identify individuals' cognitive coping strategies after experiencing negative events. This questionnaire is a self-report tool, including 36 items. Cognitive emotional regulation questionnaire possesses a concrete theoretical and practical base, including 9 subscales. The subscales examine nine components: cognitive strategy of self-blame, acceptance, rumination, positive refocus, refocus of planning, positive reevaluation, perspective, catastrophizing, and blaming others. High scores in each subscale express the level of using the mentioned strategy to cope with negative and stressful events (8). Cronbach's Alpha coefficient was satisfactory for all subscales, and it was calculated to be 83.3 percent. The range of most correlations between items was greater than 0.4, which shows that subscales have a satisfactory internal consistency. In examining psychometric features of this questionnaire, Hassani showed that nine subscales of the Persian version of the cognitive emotional regulation questionnaire have favorable internal consistency (Magnitude if Cronbach's Alpha was 0.76 and 0.92). The results of analyzing the main component supported a nine-factor pattern of cognitive emotional regulation questionnaire, which expressed 74 percent of variance. The degree of internal relationships between subscales was fairly high (14).

3.4. Data Analysis

In order to analyze data, descriptive statistics methods were used, including mean, standard deviation, frequency, and percentage; and in order to examine research hypotheses, inferential statistics were used, including multivariate

variance analysis. In addition, data analysis was done using a statistical software package, i.e. SPSS/20.

4. Results

In this study, 200 respondents (100 exposed-to-violence women and 100 normal women) were examined. Exposed-to-violence women's average age and standard deviation were 31.09 \pm 4.80 years; and they were 29.73 \pm 5.56 for normal women; additionally, mean of marriage period for exposed-to-violence women was 64.48; and it was 63.89 for normal women. The results of the descriptive analysis of research variables are given in Tables 1 and 2.

Components	Group	Mean	Standard Deviation		
Emotional	Exposed-to- violence	49.34	7.00		
misbehavior	Normal	29.62	3.11		
Physical misbehavior	Exposed-to- violence	28.97	3.06		
	Normal	19.88	3.34		
Sexual misbehavior	Exposed-to- violence	24.71	6.19		
	Normal	12.38	2.79		

Comparison of mean values shows that in terms of emotional, physical, and sexual misbehavior, mean value of exposed-to-violence women is greater than that of normal women; and this difference is clearly seen.

In the section of inferential findings, before analyzing data using parametric statistical styles, normal distribution of data was done using Kolmogorov-Smirnov test for each subscale, within two groups. Considering "Z" statistics and significance level (P > 0.05), the results of this test showed that this hypothesis holds, and that data of both groups have normal distribution. Hence, when using inferential statistics styles such as multivariate and single-variable variance analysis, there are no constraints.

First Hypothesis was that there is a significant relationship between domestic abuse dimensions of exposed-toviolence and normal women. In order to compare emotional, physical, and sexual misbehaviors of exposed-toviolence and normal women, a multivariate variance analysis was used.

Results of multivariate tests showed that there is a significant relationship between the three dimensions of domestic abuse questionnaire within the two groups of

Table 2. Mean and Standard Deviation of the Dimensions of Emotional Regulation, Within Two Groups

Components	Group	Mean	Standard Deviation		
Self-blame	Exposed-to-violence	12.88	1.39		
3CH-Diame	Normal	9.65	1.45		
Acceptance	Exposed-to-violence	9.78	2.67		
кесрине	Normal	10.95	1.21		
Rumination	Exposed-to-violence	11.65	1.76		
Kummation	Normal	10.01	1.74		
Positive refocus	Exposed-to-violence	10.25	1.88		
. control relocus	Normal	11.79	1.62		
Refocus of planning	Exposed-to-violence	9.01	1.31		
Refocus of planning	normal	12.34	1.32		
Positive reevaluation	Exposed-to-violence	8.16	1.41		
	Normal	9.30	2.56		
P	Exposed-to-violence	9.13	1.39		
Perspective	normal	9.27	1.26		
Catastrophizing	Exposed-to-violence	11.38	1.24		
catasti opiiiziiig	Normal	9.03	1.11		
Blaming others	Exposed-to-violence	11.28	1.58		
bianning others	Normal	11.07	1.62		

 $\textbf{Table 3.} \ Results of \ Multivariate \ Tests \ in \ Order \ to \ Compare \ Personality \ Traits \ of \ Both \ Groups$

Tests	Value	F	dfı	df2	P Value
Pillai's Trace	0.885	502.959	3	196	0.0001
Wilk's Lambda Trace	0.115	502.959	3	196	0.0001
Hotelling's Trace	7.698	502.959	3	196	0.0001
Roy's Largest Root Test	7.698	502.959	3	196	0.0001

Table 4. Results of Multivariate Analysis of Variance in Order to Compare the Dimensions of Domestic Abuse in Both Groups

Components	Sum of Squares	df	Mean of Squares	F	P Value	R² Square
Emotional misbehavior	19443.920	1	19443.920	661.722	0.0001	0.770
Physical misbehavior	4131.405	1	4131.405	401.094	0.0001	0.670
Sexual misbehavior	7601.445	1	7601.445	329.618	0.0001	0.625

women. Table 4 represents the results of multivariate analysis of variance with more details.

The results of multivariate analysis of variance shows that in all three subscales of domestic abuse questionnaire, (emotional, physical, and sexual misbehavior) there is a significant difference between both groups of women. Comparison of mean values shows that the degree of these dimensions in exposed-to-violence women is high. Hence, the first hypothesis is approved.

Second Hypothesis explained as there is a significant difference between normal and exposed-to-violence women in terms of emotional regulation. In order to compare the dimensions of emotional regulation in normal and exposed-to-violence women, a multivariate variance

analysis method was used.

Results of multivariate tests showed that there is a significant difference between the dimensions of emotional regulation within the two groups of women. Table 6 represents the results of multivariate variance analysis with more details for each dimension.

The results of multivariate variance analysis showed that there is a significant difference between the two groups of women (exposed-to-violence women and normal women) in terms of the seven dimensions of emotional regulation, i.e. self-blame, acceptance, rumination, positive refocus, refocus of plan, positive reevaluation, and catastrophizing. However, in terms of perspective and blaming others, there was not a difference between the two groups. Hence, the third hypothesis of the research is approved.

5. Discussion and Conclusion

The present study aimed to compare domestic abuse and emotional regulation between normal and exposed-to-violence women. In order to examine the first hypothesis, a multivariate variance analysis was used. The results of the multivariate variance analysis showed that there is a significant difference between the two groups of women in terms of the three subscales of domestic abuse questionnaire (emotional, physical, and sexual misbehavior); and comparison of mean values shows that the degree of these dimensions in exposed-to-violence women is high. Hence, the first hypothesis of the research is approved. The results of this study are in congruence with those obtained from studies done by previous studies (4, 27-29).

As expected, the results of this study showed that there is a significant difference between normal and exposedto-violence women in terms of physical, sexual, and emotional dimensions of domestic abuse. There is more domestic abuse among exposed-to-violence women than normal women. Many normal women might be exposed to emotional and sexual misbehavior; however, they are very conservative about expressing these problems. But those exposed-to-violence women who have records in conflict intervention centers are not conservative and easily express their feelings; they might even exaggerate their husbands' misbehavior. In addition, exposed-to-violence women are generally in a lower level in terms of education, income, and social communications, compared to normal women. The broader the interactions is, the more the access to support sources would be; and if wives are exposed to violence, they can get help from support sources in order to defend their rights.

Furthermore, the results of the present study showed that there is a significant difference between normal and

exposed-to-violence women in terms of emotional regulation. In order to examine the second hypothesis of the research, a multivariate variance analysis was used. The results of the multivariate variance analysis showed that there is not a significant difference between the two groups of women in terms of emotional regulation dimensions, i.e. self-blame, acceptance, rumination, positive refocus, refocus of the plan, positive reevaluation, and catastrophizing. Hence, the second hypothesis of the research is approved. The results of the above research are in line with those obtained from studies conducted by Granefskis' studies (12, 13).

In expressing the above results, it can be said that in terms of perfection, emotion is a heritage that we have inherited from early humans. Hence, because it has special mechanisms, it is still existent in humanity (30). Emotions help humans to adapt themselves to problems and challenges they face; almost all new theories that have been put forward in the field of emotions emphasize the positive and adaptive role of emotions in humans' behavior. Many other studies also emphasize the undeniable role of emotions in different processes of the mind such as decision making and processing of information (31).

However, it must be noted that despite the positive and constructive role of emotions in humans' lives. Another dimension which is of importance is the destructive aspect of emotions. In fact, emotions become problematic when they are expressed in the wrong way; when they take place in the wrong place; and when they are intensified, which have long-lasting effects on individuals' lives. This twofold mechanism of emotions refers to the process of emotional regulation, within which individuals adjust their emotions according to different situations (32).

Limitation of the study: one of the limitations of the present study is that exposed-to-violence women face improper experiences as well as difficult mental conditions. These women might get bored when answering questions. In addition, they might exaggerate problems in order to make their situation sound more serious, which must be considered when generalizing findings. Moreover, because many exposed-to-violence women do not refer to supportive centers, it is recommended that certain measures are taken in order to reduce the effect of boredom when answering questions; it is also recommended that shorter questionnaires are used in next studies in order to reduce respondents' fatigue and boredom.

References

 Wahed T, Bhuiya A. Battered bodies & shattered minds: violence against women in Bangladesh. *Indian J Med Res.* 2007;126(4):341–54. [PubMed: 18032809].

Table 5. Results of Multivariate Tests for Comparing the Dimensions of Emotional Regulation, Within Both Groups

Tests	Value	F	dfı	df2	P Value
Pillai's Trace	0.859	128.107	9	190	0.0001
Wilk's Lambda Trace	0.141	128.107	9	190	0.0001
Hotelling's Trace	6.068	128.107	9	190	0.0001
Roy's Largest Root Test	6.068	128.107	9	190	0.0001

Table 6. Results of Multivariate Analysis of Variance for Comparing the Dimensions of Emotional Regulation

Components	Sum of Squares	Df	Mean of Squares	F	Significance	R ² Squares
Self-blame	521.645	1	521.645	257.371	0.0001	0.565
Acceptance	68.445	1	68.445	15.834	0.0001	0.074
Rumination	134.480	1	134.480	43.813	0.0001	0.181
Positive refocus	118.580	1	118.580	38.280	0.0001	0.162
Refocus of plan	554.445	1	554.445	317.807	0.0001	0.616
Positive reevaluation	64.980	1	64.980	15.129	0.0001	0.071
Perspective	0.980	1	0.980	0.556	0.457	0.003
Catastrophizing	276.125	1	276.125	197.753	0.0001	0.500
Blaming others	2.205	1	2.205	0.855	0.356	0.004

- Nojomi M, Agaee S, Eslami S. Domestic violence against women attending gynecologic outpatient clinics. Arch Iran Med. 2007;10(3):309-15. [PubMed: 17604466].
- Shannon K, Kerr T, Strathdee SA, Shoveller J, Montaner JS, Tyndall MW. Prevalence and structural correlates of gender based violence among a prospective cohort of female sex workers. *BMJ*. 2009;339:b2939. doi: 10.1136/bmj.b2939. [PubMed: 19671935].
- 4. Khosravi Z, Khaghani Fard M. Study of factors which predict violence against women in two groups of women: those who visit courts of law and those in a control group [In Persian]. *Women dev politics (Women Res)*. 2010;8(3):177–93.
- Dorosty AR, Mehdikhani S, Sotoudeh G, Rahimi A, Koohdani F, Tehrani P. Perception of weight and health status among women working at health centres of Tehran. *J Health Popul Nutr.* 2014;32(1):58–67. [PubMed: 24847594].
- Kossek EE, Pichler S, Bodner T, Hammer LB. Workplace Social Support and Work-Family Conflict: A Meta-Analysis Clarifying the Influence of General and Work-Family-Specific Supervisor and Organizational Support. Pers Psychol. 2011;64(2):289–313. doi: 10.1111/j.1744-6570.2011.01211.x. [PubMed: 21691415].
- Ma WS, Pun TC. Prevalence of Domestic Violence in Hong Kong Chinese Women Presenting with Urinary Symptoms. *PLoS One*. 2016;11(7):e0159367. doi: 10.1371/journal.pone.0159367. [PubMed: 27428060].
- 8. Garnefski N, Kraaij V, Spinhoven P. Manual for the use of the cognitive emotion regulation questionnaire: a questionnaire measuring cognitive coping strategies. 2000.
- Gross JJ. Handbook of emotion regulation. New York: Guilford Press; 2007.
- Campbell-Sills L, Barlow DH. In: Handbook of Emotion Regulation. Gross JJ, editor. New York: Guilford Press; . pp. 542-59. Incorporating Emotion Regulation into Conceptualizations and Treatments of Anxiety and Mood Disorders.
- 11. Gross JJ. Emotion regulation in adulthood: Timing is everything. Curr

- Dir Psychol Sci. 2016;10(6):214-9. doi: 10.1111/1467-8721.00152.
- Garnefski N, Kraaij V. Relationships between cognitive emotion regulation strategies and depressive symptoms: A comparative study of five specific samples. *Peers Individual Different.* 2006;40(8):1659-69. doi: 10.1016/j.paid.2005.12.009.
- Garnefski N, Baan N, Kraaij V. Psychological distress and cognitive emotion regulation strategies among farmers who fell victim to the foot-and-mouth crisis. *Peers Individual Diffrence*. 2005;38(6):1317-27. doi:10.1016/j.paid.2004.08.014.
- Hassani J. Psychometric features of cognitive emotional regulation questionnaire. Clin Psychol Mag. 2010;7(3):73-84.
- Garnefski N, Grol M, Kraaij V, Hamming JF. Cognitive coping and goal adjustment in people with Peripheral Arterial Disease: relationships with depressive symptoms. *Patient Educ Couns.* 2009;76(1):132–7. doi: 10.1016/j.pec.2008.11.009. [PubMed: 19097742].
- Pena-Sarrionandia A, Mikolajczak M, Gross JJ. Integrating emotion regulation and emotional intelligence traditions: a meta-analysis. Front Psychol. 2015;6:160. doi: 10.3389/fpsyg.2015.00160. [PubMed: 25759676].
- Cakmak AF, Cevik EI. Cognitive emotion regulation questionnaire: Development of Turkish version of 18-item short form. *Afr J Bus Mange*. 2010;4(10):2097–102. doi: 10.5897/ajbm.
- Wittenberg E, Joshi M, Thomas KA, McCloskey LA. Measuring the effect of intimate partner violence on health-related quality of life: a qualitative focus group study. *Health Qual Life Outcomes*. 2007;5:67. doi: 10.1186/1477-7525-5-67. [PubMed: 18093304].
- Tiwari A, Chan KL, Fong D, Leung WC, Brownridge DA, Lam H, et al. The impact of psychological abuse by an intimate partner on the mental health of pregnant women. BJOG. 2008;115(3):377–84. doi: 10.1111/j.1471-0528.2007.01593.x. [PubMed: 18190375].
- Matud MP. Dating violence and domestic violence. J Adolesc Health. 2007;40(4):295-7. doi: 10.1016/j.jadohealth.2007.02.001. [PubMed: 17367720].

- 21. Eberhard-Gran M, Schei B, Eskild A. Somatic symptoms and diseases are more common in women exposed to violence. *J Gen Intern Med.* 2007;22(12):1668-73. doi: 10.1007/s11606-007-0389-8. [PubMed: 17922169].
- Diop-Sidibe N, Campbell JC, Becker S. Domestic violence against women in Egypt-wife beating and health outcomes. Soc Sci Med. 2006;62(5):1260-77. doi: 10.1016/j.socscimed.2005.07.022. [PubMed: 16139404].
- 23. Hegarty KL, Gunn JM, O'Doherty LJ, Taft A, Chondros P, Feder G, et al. Women's evaluation of abuse and violence care in general practice: a cluster randomised controlled trial (weave). *BMC Public Health*. 2010;**10**:2. doi: 10.1186/1471-2458-10-2. [PubMed: 20044929].
- 24. Leung TW, Leung WC, Ng EH, Ho PC. Quality of life of victims of intimate partner violence. *Int J Gynaecol Obstet.* 2005;**90**(3):258–62. doi: 10.1016/j.ijgo.2005.05.010. [PubMed: 16005877].
- Ghahari S, Panaghi L, Atef-Vahid MK, Zarei-Dust E, Mohammadi AR. Examination of mental health status among women who are victims of domestic abuse. Sci Mag Med Sci Univ Gilan. 2006;4(8):57-63.
- Zeinali S, Khasteganan N. Relationship between domestic abuse, social support, and perceived stress in women with addicted husbands and non-addicted husbands in Rasht [In Persian]. Holistic Midwifery

- Nurs Mag. 2012;22(2):25-32.
- 27. Alivardi-Nia A, Riahi ME, Farhadi M. Social analysis of husbands' violence against women: Theoretical model and experimental test. Soc Matter Iran. 2011;2(2):95–127.
- 28. Klomegah RY. Intimate partner violence in Zambia: an examination of risk factors and gender perceptions. *J Comp Fam Stud.* 2008;**39**(4):557–69.
- 29. Haarr RN. Wife Abuse in Tajikistan. Fem Criminol. 2016;2(3):245-70. doi: 10.1177/1557085107302869.
- 30. Grodzinsky Y. The picture of the linguistic brain: how sharp can it be? Reply to Fedorenko & Kanwisher. *Lang Linguist Compass*. 2010;4(8):605–22. doi: 10.1111/j.1749-818X.2010.00222.x. [PubMed: 20976129].
- Vandercammen L, Hofmans J, Theuns P. Relating specific emotions to intrinsic motivation: on the moderating role of positive and negative emotion differentiation. *PLoS One.* 2014;9(12):e115396. doi: 10.1371/journal.pone.0115396. [PubMed: 25517984].
- Werner NS, Jung K, Duschek S, Schandry R. Enhanced cardiac perception is associated with benefits in decision-making. *Psychophysiology*. 2009;46(6):1123–9. doi: 10.1111/j.1469-8986.2009.00855.x. [PubMed: 19558399].