JCHR

Journal of Community Health Research 2021; 10(3): 218-225.

The Effect of Acceptance and Commitment Therapy on Hypochondria and Cognitive Emotion Regulation among Divorced Women

Hamideh Iri [1], Behnam Makvandi [*2], Saeed Bakhtiarpour [3], Fariba Hafezi [3]

1- Department of Health Psychology, Khorramshahr International Branch, Islamic Azad University, Khorramshahr, Iran
2-Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran
3- Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran

ARTICLE INFO

Original Article

Received: 17 June 2021
Accepted: 8 August 2021

OPEN ACCESS

Corresponding Author:
Behnam Makvandi
makvandi203@gmail.com

ABSTRACT

Introduction: Hypochondriasis is a psychological disorder that affects divorced women's quality of life and mental health. The aim of this study was to investigate the effectiveness of acceptance and commitment therapy (ACT) on hypochondria and cognitive emotion regulation among divorced Women in Tehran.

Methods: The method was experimental with a pre-test, post-test design, and a control group. In the present study, the research population includes divorced women who have been affected by divorce-related psychological problems and were referred to Tehran consultation centers in 2018. In this study, The sample consisted of 30 divorced women selected by purposive sampling and randomly divided into experimental and control groups (n= 15 each). The research tools included the Health Anxiety Inventory (HAI) and the Cognitive Emotion Regulation Questionnaire (CERQ). The ACT intervention was performed on the experimental group for ten 90-minute sessions. Pearson's correlation coefficient, Levene's test, Shapiro-Wilk test, and multivariate analysis of covariance (MANCOVA) were used to analyze the data. The significance level of the study was considered to be α=0.05.

Results: The mean and standard deviation (SD) of hypochondria post-test scores in the experimental and control groups were 35.13±1.92 and 37.33±3.07, respectively. The results indicated that ACT decreased hypochondria in the women (P=0.04). Also, the intervention effectively increased positive emotion regulation in the women (P=0.01).

Conclusion: In addition to decreasing anxiety and increasing emotion regulation ability under difficult situations, ACT can increase social and psychological adaptability. Also, ACT can effectively decrease interactive and stress and anxiety in divorced women.

Keywords: Anxiety, Acceptance and Commitment Therapy, Cognitive, Emotion, Divorce, Hypochondriasis, Women

How to cite this paper:
Iri H, Makvandi B, Bakhtiarpour S, Hafezi F. The Effect of Acceptance and Commitment Therapy on Hypochondria and Cognitive Emotion Regulation among Divorced Women. J Community Health Research 2021; 10(3): 218-225.

[DOI: 10.18502/jchr.v10i3.7277]

Introduction

Women's mental health has a major share in forming a healthy family that will guarantee society's health (1). Divorce is a phenomenon leading to family breakdown and one of the main deficits in family life. Divorce rates have increased dramatically in countries worldwide, representing one of the major societal shifts of the late twentieth century (2). Globally, the divorce rate has more than doubled in the nearly four decades, from 2.6 divorces for every 1,000 married people to 5.5. In the Middle Eastern and North African nations, rates range from 1.80 and 1.98 for Iran and Syria to 4.27 and 4.68 for Egypt and Kuwait (3). Divorce affects the family members' compatibility in all cognitive, emotional, and social aspects. In this situation, women are mainly affected by interpersonal and social problems (1, 4). Studies suggest that people's social class predict their psychological well-being (5).

Hypochondriasis is a continuum concept that represents minor concerns about one's health and being affected by the disease on the one hand and the health anxiety disorder on the other hand. Hypochondriasis imposes a high cost in healthcare (6), occupational capability, and quality of life (7). Hypochondriasis or health anxiety is accompanied by excessive concern about diseases and especially severe diseases, inability to ignore minor physical symptoms, lack of selective attention to these symptoms in the case of being exposed to heard or written information about a disease, frequently referring to doctors and treatment centers, and excessive fear of death. The prevalence of hypochondriasis in the general population is around 0.05%–1.3% and between 3% and 9% in primary care settings (8, 9). There is a positive correlation between hypochondriasis and psychiatric symptoms, especially depression and anxiety (10, 11).

Emotion regulation refers to the ability to control and change the intensity and orientation of emotions. It is also related to balancing negative emotions, eliminating unfavorable effects on psychological adaptability, and preserving the positive emotions that bear hedonic values (12). Awareness of emotions lets people perceive them and employ the emotions to decrease disorders. Emotions can be used as a strong force for "conducting cognition" and "promoting social relationships," strongly affecting reasoning ability. Emotion regulation helps the person to seek their goals regarding their socio-cultural demands. Advanced emotion regulation skills allow the growth of adaptive behaviors and proper and flexible responses (13).

Third-wave (cognitive-behavioral) psychotherapy emphasizes issues including mind, relationships, values, acceptance, emotions, goals, and meta-cognition. Acceptance and commitment therapy (ACT) are considered as a part of third-wave cognitive-behavioral therapy (CBT), and it includes treatments such as mindfulness-based cognitive therapy (MBCT) and integrative behavioral couple therapy (IBCT) (14). This treatment mainly aims to provide psychological flexibility that eliminates the need to get rid of unfavorable emotions; instead, the person can move towards a thought-based positive behavior despite unfavorable emotions. ACT is a behavior-oriented treatment that provides a comprehensive experimental analysis of human cognition (15). In clinical behavior analysis, the ACT is fundamentally focused on spirituality, values, and self (16).

ACT application for the treatment of hypochondriasis is based on a functional methodology and the emphasis on the function of internal experiences, i.e., how thoughts about diseases and physical emotions are experienced and controlled by acceptance, tendency, and reduction strategies (17). Mohammadi et al. (18) reported that this treatment improves cognitive emotion regulation. Bluett et al. (19) found that ACT is effective in treating anxiety spectrum disorder and obsessive-compulsive disorder. Yadavaia et al. (20) concluded that ACT is effective in the treatment of psychological distress, anxiety, depression, and stress. Hoffmann et al. (21) reported that ACT intervention could decrease the symptoms of hypochondriasis and stress by affecting psychological flexibility and

[DOI: 10.18502/jchr.v10i3.7277]

mindfulness. Brinkborg et al. (22) found that ACT decreases stress and increases general health. Wojnarowska et al. (23) concluded that ACT could increase the emotion regulation ability. White et al. (24) investigated the effect of ACT on emotional dysfunction in patients with psychosis, and they reported that this treatment could decrease emotional dysfunction.

Accordingly, the present research aims to study the effect of ACT on hypochondriasis and cognitive emotion regulation in divorced women, referring to consultation centers of Tehran city.

Methods

The method was experimental with a pre-test, post-test design, and a control group. The study population included the divorced women who have been affected by divorce-related psychological problems and referred to Tehran consultation centers from May 31 to September 3, 2018. The sample included 30 divorced women selected by purposive sampling and randomly divided into experimental and control groups. Fifteen divorced women were included in each group using G*Power software version 3.1 with an effect size of 1.09, a test power of 0.95, and α=0.05 based on the means index. Randomization was performed by the researcher using a table of random numbers. Odd numbers were considered for the experimental group members, and even numbers were considered for the control group members. The inclusion criteria were: getting a score lower than mean in the health anxiety inventory and cognitive emotion regulation questionnaire, having psychiatric disorders based on the health anxiety inventory, having at least a middle school literacy level, having one year of living together. The exclusion criteria were: having serious mental disorders or physical disability, reluctance to continue the treatment process, and the absence of more than two treatment sessions. In order to observe the ethical principles, the control group also received intervention sessions after the end of the experimental group sessions and performed the post-test in the experimental and control groups. The participants were informed of the research goals and the procedures. Also, the researchers received written consent for participation in the research from the participants.

Research instruments

The Health Anxiety Inventory (HAI): Short form of this inventory (25) was used in the present research. It is designed based on the hypochondriasis cognitive model, and it includes 18 items. Each item is answered based on four choices that present the person's description of health and illness components in a declarative sentence. The participants should choose one of the sentences describing them in the best way. Each item is assigned a score of 0-3. Higher scores indicate hypochondriasis in the participants. Test-retest reliability and Cronbach's alpha were respectively reported as 0.90 and 0.70-0.82 for this inventory (25). Nargesi (26) reported the Cronbach's alpha of this 18-item inventory was 0.87. In this study, Cronbach's alpha coefficient reported as 0.90.

The Cognitive Emotion Regulation Questionnaire (CERQ): CERQ was prepared by Garnefski and Kraaij in 2006 (27). CERQ is scored based on a five-point Likert scale ranging from from 1 “never” to 5 “always”. The cognitive emotion regulation scale includes the subscales of acceptance, self-blame, rumination, blaming others, catastrophizing, and positive refocus, positive reappraisal. Garnefski and Kraaij (27) reported that the internal consistency of this questionnaire is equal to 0.71 based on Cronbach's alpha coefficient. Also, the reliability and validity of the questionnaire have been reported at an acceptable level (28). In this study, Cronbach's alpha coefficient reported as 0.79.

Intervention program

The experimental group received ten 90-min sessions of ACT intervention. A summary of ACT sessions is summarized in Table 1.

[DOI: 10.18502/jchr.v10i3.7277]

Table 1. A summary of ACT sessions (29)

Sessions	Content of sessions
First	Communicating with the participants, providing them with a familiarity with the research subject, answering the questionnaire, and contracting the participants for the treatment sessions.
Second	Detecting and studying the treatment methods and evaluating their effectiveness, discussing the temporary effectiveness of the treatments by giving examples, getting feedback, and determining the assignments.
Third	Helping the participants detect inefficient controlling strategies, accepting the upsetting incidents without conflict, giving examples, getting feedback, and determining the assignments.
Fourth	Discussing avoidance of unfavorable experiences and getting awareness of its consequences, teaching the steps of acceptance, changing language concepts by giving examples, relaxation training, getting feedback, and determining the assignments.
Fifth	Introducing a three-dimensional behavioral model to express the mutual relationship of behaviors/emotions, psychological functions, and observable behaviors, discussing the attempt to change behaviors based on the proposed model, getting feedback, and determining the assignments.
Sixth	Describing the concepts of the role and the context, regarding oneself as a context and self-contact by giving examples, awareness of different sensory receptions, and isolation from the senses that are part of the mental content, getting feedback and determining the assignments.
Seventh	Describing the concept of values, creating motivation for change, and enabling the participants to move towards a better life, practicing concentration, getting feedback, and determining the assignments.
Eighth	Educating commitment to action, identifying the behavioral plans based on the values and inspiring commitment to them, summarizing the sessions.
Ninth	Reviewing the assignments of the previous session and continuing the education of skills.
Tenth	Reviewing the assignments of the previous sessions and the summary of the contents taught in previous sessions, investigation of the treatment progression and the achievement of the treatment goals, the participants' perspective of the future, the end of the treatment program.

Statistical analyses

The normality of the data distribution was checked by the Shapiro-Wilk test. Homogeneity of variances was approved by Levene's test. Pearson's correlation coefficient was used to check the correlation of covariates (pre-test). According to the results of Pearson's test, there was a normal correlation between hypochondriasis and emotion regulation. The effectiveness of ACT (independent variable) in hypochondriasis and cognitive emotion regulation (dependent variables) in divorced women was studied by multivariate analysis of covariance (MANCOVA). In the present study, because the pre-test stage was considered a covariance, multivariate analysis of covariance was used to analyze the data. SPSS version 24 was further used for analyzing the data. The significance level of the study was considered to be α=0.05.

Results

The participants were 30 women of 20-50 years old. 40.2% of the samples had a high school degree, 24.4% of the samples had a middle school degree, and 35.4% of the participants had an academic degree. The results showed no significant difference between the experimental and control groups regarding demographic characteristics, so the two groups were homogeneous. Table 2 presents the mean and standard deviation (SD) of the pre-test and post-test scores of hypochondriasis and emotion regulation for the experimental and control groups.

Table 2. Mean and standard deviation of the variables in experimental and control groups in pre-test and post-test

[DOI: 10.18502/jchr.v10i3.7277]

Table 2. Mean and standard deviation of the variables in experimental and control groups in pre-test and post-test

Variable	Group	Experimental group M ± SD	Control group M ± SD	P
Hypochondriasis	Pre-test	36.17±2.44	37.47±3.23	0.318
	Post-test	35.13±1.92	37.33±3.07	0.001
Positive emotion regulation	Pre-test	53.80±2.17	50.53±1.12	0.119
	Post-test	54.80±1.92	50.80±1.77	0.001
Negative emotion regulation	Pre-test	67.38±2.72	66.73±2.00	0.460
	Post-test	61.60±3.51	66.33±2.02	0.001

The mean and standard deviation (SD) of hypochondriasis post-test scores in the experimental and control groups were 35.13±1.92 and 37.33±3.07, respectively. The mean and SD of positive emotion regulation post-test scores in the experimental and control groups were respectively reported as 54.80±1.92 and 50.80±1.77. Meanwhile, the mean and SD of negative emotion regulation post-test scores in the experimental and control groups were respectively reported as 61.60±3.51 and 66.33±2.02. According to the results, the post-test scores of positive emotion regulation (planning and broad perspective) and negative emotion regulation (self-blame, blaming others, rumination, catastrophizing, and acceptance) were respectively increased and decreased in the experimental groups.

Table 3 presents the results of the analysis of covariance hypochondriasis and emotion regulation in the experimental and control groups.

Table 3. The results of multivariate analysis of covariance (MANCOVA) the effect of ACT on research dependent variables

Variable	Source	SS	df	MS	F	P	η_p^2
Hypochondriasis	Pre-test	258.03	1	258.03	25.56	0.02	0.56
	Group	302.53	1	302.53	12.07	0.04	0.65
	Error	202.50	27	7.50			
Cognitive emotion regulation	Pre-test	95.80	1	95.80	34.86	0.03	0.34
	Group	177.50	1	177.50	20.59	0.01	0.29
	Error	74.20	27	2.75			

According to Table 3, ACT was significantly effective in reducing hypochondriasis in divorced women (P=0.04). The observed difference implied the decreased symptoms of hypochondriasis in divorced women following the ACT intervention compared to the control group. ACT was also significantly effective in positive and negative emotion regulation in divorced women (P=0.01). Therefore, following the ACT intervention, the symptoms of positive emotion regulation (planning and broad perspective) were significantly increased. The symptoms of negative emotion regulation (self-blame, blaming others, rumination, catastrophizing, and acceptance) significantly decreased in divorced women compared to the control group.

Discussion

This study aimed to investigate the effectiveness of ACT on hypochondriasis and cognitive emotion regulation in divorced women in Tehran city. The present research revealed that ACT intervention could effectively decrease hypochondriasis. This finding is consistent with the research results of Mirzaeidoostan et al. (30), Hoffmann et al. (31), and Eilenberg et al. (32). Divorce brings about social, economic, mental, physical, psychological, and emotional problems for the divorced person (5, 33, 34). In other words, the stress and pressures imposed by divorce can increase anxiety, social and mental inadaptability, and depression, decrease psychological well-being and disturb the person's social and occupational relationships (34). ACT

[DOI: 10.18502/jchr.v10i3.7277]

intervention provides the person with an inclusive awareness of the present time, openness, tendency, and acceptance of life (21, 35). ACT creates awareness of the present time, activity, and avoidance of the thoughts reflecting the problems (18, 19). In other words, the inclusive awareness enables the persons to let their thoughts and emotions move to the unconscious mind without any control; so that, accepting the mentioned thoughts, the person can change the threats into opportunities, bear the unfavorable incidents, and seek a solution for problems (21). This ability can decrease anxiety under difficult conditions, create a problem-oriented approach instead of an emotion-oriented one, and preserve occupational and social adaptability.

The present research revealed that ACT intervention could effectively increase cognitive emotion regulation in divorced women. This finding is consistent with the research results of Wojnarowska et al. (23), Yaraghchi et al. (36), Rahmanian et al. (37), and Tarkhan (38). ACT could significantly decrease self-blame, rumination, catastrophizing, and blaming others, and increase acceptance, positive refocus, attention to planning, positive reappraisal, and perspective-taking (39). So, by training how to accept the thoughts and conditions, ACT can effectively improve emotion regulation and increase emotion regulation ability (40). Cognitive emotion regulation refers to the physiological and behavioral psychological processes adopted by the person to change the negative emotions and tend to positive emotions by reappraisal of special cognitive strategies in his/her own and others' emotions; these processes are adopted aimed at avoiding the probable harms and achieving goals (4). In other words, cognitive emotion regulation refers to the internal and external responding processes as opposed to inhibition and evaluating and balancing the emotional interactions and especially their transient characteristics to achieve a goal. ACT defenders believe that the thoughts and emotions should be identified in the conceptual context of the events. So, unlike the cognitive-behavioral approaches, which try to modify the inefficient cognitions and beliefs to improve emotions and behaviors, ACT teaches persons to accept their thoughts and regulate their emotions, live in the present moment, and become more flexible.

The present study was performed on divorced women in Tehran city in 2018. Therefore, caution must be exercised in generalizing the results to other communities. Due to the limitations of this study, especially the geographical, the sample size, and the lack of control on individual difference variables such as social support, a similar study is recommended to be conducted on larger sample size.

Conclusion

Divorce is always described as one of the most stressful incidents of life that can increase the sensitivity to diseases and mood disorders. This research reported that ACT is an effective intervention for divorced women experiencing social, interactive, and adaptive problems. Therefore, ACT effectively reduces the effect of unfavorable emotions and replaces them with more rational and adaptive thoughts. Meanwhile, ACT has been effective in reducing the symptoms of hypochondriasis. The research findings can be useful for family psychologists, consultants, and family experts. Also, the results can be used for developing new interventional and educational protocols for treating divorced women.

Acknowledgments

The researchers wish to thank all the individuals who participated in the study.

Conflict of interest

The authors declared no conflicts of interest.

Authors contribution

Hamideh Iri: Study concept and design, acquisition of data, analysis and interpretation of data, and statistical analysis. Behnam Makvandi: Administrative, technical, and material support, study supervision. Saeed Bakhtiarpour and Fariba Hafezi: Critical revision of the manuscript for important intellectual content.

[DOI: 10.18502/jchr.v10i3.7277]

References

1. Amato PR. Research on Divorce: Continuing Trends and New Developments. Journal of marriage and family. 2010;72(3):650-66.
2. Wang C-TL, Schofer E. Coming Out of the Penumbras: World Culture and Cross-National Variation in Divorce Rates. Social Forces. 2018;97(2):675-704.
3. DePaulo B. Divorce Rates Around the World: A Love Story. Psychology Today. 2019.
4. Shakeri SS, Shabani j, Aghamohammadian Sharbaf H, et al. Mediating Role of Attitude towards Betrayal and Marital Conflict in Relation between Using Virtual Social Networks and Emotional Divorce. Journal of Community Health Research. 2019;8(4):220-7.
5. Smith-Greenaway E, Clark S. Variation in the link between parental divorce and children's health disadvantage in low and high divorce settings. SSM - Population Health. 2017;3:473-86.
6. Fallon BA, Ahern DK, Pavlicova M, et al. A Randomized Controlled Trial of Medication and Cognitive-Behavioral Therapy for Hypochondriasis. American Journal of Psychiatry. 2017;174(8):756-64.
7. Fink P, Ornbol E, Christensen KS. The outcome of health anxiety in primary care. A two-year follow-up study on health care costs and self-rated health. PloS one. 2010;5(3):e9873.
8. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author. 2013.
9. Wilhelmsen I. Hypochondriasis or Health Anxiety. Reference Module in Neuroscience and Biobehavioral Psychology: Elsevier; 2017.
10. Lavenda O, Mahat-Shamir M, Lorenz L, et al. Revalidation of Adjustment Disorder-New Module-4 screening of adjustment disorder in a non-clinical sample: Psychometric reevaluation and correlates with other ICD-11 mental disorders. PsyCh journal. 2019;8(3):378-385.
11. Pruneti C, Innocenti A, Cammisuli DM. Multidimensional approach usefulness in early Alzheimer's disease: Advances in clinical practice. Acta Biomed. 2018;89(1):79-86.
12. Finkelstein-Fox L, Park CL, Riley KE. Mindfulness and emotion regulation: promoting well-being during the transition to college. Anxiety Stress Coping. 2018;31(6):639-653.
13. Willem C, Gandolphe MC, Roussel M, et al. Difficulties in emotion regulation and deficits in interoceptive awareness in moderate and severe obesity. Eat Weight Disord. 2019;24(4):633-644.
14. Karamozan M, Askarizadeh G. Effectiveness of Cognitive-Behavioral Stress Management Intervention on Anxiety and Depression during Pregnancy. Journal of Kerman University of Medical Sciences. 2013;20(6):606-621.
15. Apolinário-Hagen J, Drüge M, Fritsche L. Cognitive Behavioral Therapy, Mindfulness-Based Cognitive Therapy and Acceptance Commitment Therapy for Anxiety Disorders: Integrating Traditional with Digital Treatment Approaches. Adv Exp Med Biol. 2020;1191:291-329.
16. Hayes SC, Villatte M, Levin M, Hildebrandt M. Open, aware, and active: contextual approaches as an emerging trend in the behavioral and cognitive therapies. ANNU REV CLIN PSYCHO. 2011;7:141-68
17. Heydari M, Masafi S, Jafari M, et al. Effectiveness of Acceptance and Commitment Therapy on Anxiety and Depression of Razi Psychiatric Center Staff. Open Access Maced J Med Sci. 2018;6(2):410-415.
18. Mohammadi L, Salehzade Abarghoei M, Nasirian M. Effectiveness of Acceptance and Commitment Therapy on Cognitive Emotion Regulation in Men under Methadone Treatment. Journal of Shahid Sadoughi University of Medical Sciences. 2015;23(9):853-861
19. Bluett EJ, Homan KJ, Morrison KL, et al. Acceptance and commitment therapy for anxiety and OCD spectrum disorders: An empirical review. Journal of Anxiety Disorders. 2014;28(6):612–624
20. Yadavaia JE, Hayes SC, Vilardaga R. Using acceptance and commitment therapy to increase self-compassion: A randomized controlled trial. Journal of Contextual Behavioral Science. 2014;3(4):248–257.
21. Hoffmann D, Halsboe L, Eilenberg T, et al. A pilot study of processes of change in group-based acceptance and commitment therapy for health anxiety. Journal of Contextual Behavioral Science. 2014;3:189-195.
22. Brinkborg H, Michanek J, Hesser H, et al. Acceptance and commitment therapy for the treatment of stress among social workers: A randomized controlled trial. Behavior Research and Therapy. 2011;49(6):389–39.

[DOI: 10.18502/jchr.v10i3.7277]

23. Wojnarowska A, Kobylinska D, Lewczuk K. Acceptance as an emotion regulation strategy in experimental psychological research: what we know and how we can improve that knowledge. Frontiers in Psychology. 2020;11(242).
24. White R, Gumle, A, McTaggart J, et al. A feasibility study of Acceptance and Commitment Therapy for emotional dysfunction following psychosis. Behavioral Research Therapy. 2011;49(12):901-7.
25. Salkovskis PM, Rimes KA, Warwick HM, et al. The Health Anxiety Inventory: development and validation of scales for the measurement of health anxiety and hypochondriasis. Psychol Med. 2002;32(5):843-853.
26. Nargesi F, Izadi F, Kariminejad K, et al. The investigation of the reliability and validity of Persian version of Health anxiety questionnaire in students of Lorestan University of Medical Sciences. Quarterly of Educational Measurement. 2017;7(27):147-160.
27. Garnefski N, Kraaij V. Cognitive emotion regulation questionnaire – development of a short 18-item version (CERQ-short). PERS INDIV DIFFER. 2006;41(6):1045-53.
28. Besharat MA, Cognitive Emotion Regulation Questionnaire: Instruction and Scoring. Journal of Developmental Psychology. 2017;13(50):221-223.
29. Ducasse D, Fond G. La. thérapie d'acceptation et d'engagement [Acceptance and commitment therapy]. Encephale. 2015;41(1):1-9.
30. Mirzaeidoostan Z, Zargar Y, Zandi Payam A. The Effectiveness of Acceptance and Commitment Therapy on Death Anxiety and Mental Health in Women with HIV in Abadan City, Iran. Iranian Journal of Psychiatry and Clinical Psychology. 2019;25(1):2-13.
31. Hoffmann D, Rask CU, Hedman-Lagerlöf E, et al. Development and Feasibility Testing of Internet-Delivered Acceptance and Commitment Therapy for Severe Health Anxiety: Pilot Study. JMIR Ment Health. 2018;5(2):e28-e.
32. Eilenberg T, Fink P, Jensen JS, et al. Acceptance and commitment group therapy (ACT-G) for health anxiety: a randomized controlled trial. Psychological Medicine. 2016;46(1):103-15.
33. Bracke PF, Colman E, Symoens SA, et al. Divorce, divorce rates, and professional care seeking for mental health problems in Europe: a cross-sectional population-based study. BMC Public Health. 2010;10:224.
34. Idstad M, Torvik FA, Borren I, et al. Mental distress predicts divorce over 16 years: the HUNT study. BMC Public Health. 2015;15:320. Published 2015 Apr 1.
35. Hayes SC. Acceptance and Commitment Therapy, Relational Frame Theory, and the Third Wave of Behavioral and Cognitive Therapies – Republished Article. Behavioral Therapy. 2016;47(6):869-885.
36. Yaraghchi A, Jomehri F, Seyrafi M,. The Effectiveness of Acceptance and Commitment Therapy on Weight Loss and Cognitive Emotion Regulation in Obese Individuals. Iranian Journal of Health Education and Health Promotion. 2019;7(2):192-201.
37. Rahmanian M, Nejatali R, Oraki M. The Effectiveness of Acceptance and Commitment Therapy in Cognitive Emotion Regulation and Concerns of Body Image in Females with Bulimia Nervosa. Journal of Health Promotion Management. 2018;7(4):33-40.
38. Tarkhan, M. The Effectiveness of Acceptance and Commitment Therapy (ACT) on Emotion Regulation and Life Meaning of Depressed Women. Journal of Psychological Studies, 2017; 13(3): 147-164.
39. Davies CD, Niles AN, Pittig A, et al. Physiological and behavioral indices of emotion dysregulation as predictors of outcome from cognitive behavioral therapy and acceptance and commitment therapy for anxiety. Journal of behavior therapy and experimental psychiatry. 2015;46:35-43. 2015;46:35-43.
40. Salimi M, Mahdavi A, Yeghaneh SS, et al. The Effectiveness of Group Based Acceptance and Commitment Therapy (ACT) on Emotion Cognitive Regulation Strategies in Mothers of Children with Autism Spectrum. Maedica (Buchar). 2019;14(3):240-246.

[DOI: 10.18502/jchr.v10i3.7277]