

The Effect of Cognitive Behavioral Therapy based on Health Psychology on Perfectionism and Quality of Life

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Abstract

Aim: The present study aimed to investigate the effectiveness of cognitive behavioral therapy based on health psychology on perfectionism and the quality of life (QOL). **Materials and Methods:** The plan of research is an experimental design by pretest–posttest and control group. The statistical population consists of all clients referring to Tali'e Counseling and Psychological Services Center located at region 4 of Tehran, of which 30 individuals who had higher perfectionism tendency based on the structured interview were selected as research sample and placed randomly in two: the two-test group and the control group. The test group went under group cognitive behavioral treatment for 2 months (8 sessions, 90 min/session). To evaluate perfectionism, the rate of them was applied and life quality was evaluated through a short form of life quality questionnaire of WH. Data were analyzed by descriptive statistics and covariance analysis (MANCOVA). **Results:** It was found that cognitive behavioral therapy reduced perfectionism and increased the QOL in the experimental group compared to that of the control group. In fact, perfectionism is rooted in dysfunctional thoughts, negative beliefs, and cognitive distortions that are reduced by cognitive behavioral therapy. When a person's perfectionism decreases, the QOL also improves due to the reduction of anxiety. **Conclusion:** The present study is one of the main applications of health psychology. Cognitive behavioral interventions have an appropriate effect on perfectionism and solving their related problems. It seems that perfectionism is reduced using cognitive behavioral techniques and practices, and finally, the QOL can improve.

Keywords: Cognitive behavioral therapy, perfectionism, quality of life, Tali'e Psychological Services and Consultation Center

INTRODUCTION

Perfectionism involves high-level, unattainable goals which are consistently attempted to meet rigid criteria and self-critical evaluations of personal performance,^[1] and these stubborn criteria are self-constructed.^[2] Perfectionism plays an important role in psychological pathology such as emotional disorders,^[3] obsessive–compulsive disorder,^[4] eating disorders,^[5] and other mental health problems.^[6,7]

The studies show that perfectionism creates a debilitating condition in a person's mental health and affects the quality of life (QOL).^[8-10] Attention to the QOL has increased as an important factor in evaluating therapeutic outcomes

and the effectiveness of treatment in physical and mental illness during the last three decades.^[11] Being isolated from social communication, decreased life satisfaction, reduced well-being and QOL, stress, burnout, increased suicide rates, and psychological distress are associated with perfectionism.^[12-15] Lack of intervention and treatment of perfectionism lead to creating some problems in the psychological functions and interpersonal, social, and occupational relationships of individuals.^[16] Various therapeutic methods were proposed in line with the etiology

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of this disorder.^[17,18] Individual and group interventions on perfectionists have reduced the level of discomfort, suffering, and perfectionist behaviors, as well as improving the QOL.^[19-22]

Cognitive behavioral therapy was used individually and collectively as the first order of intervention among the perfectionists, and an acceptable efficacy can be reported.^[23] Health psychology studies behavioral and psychological processes during health, illness, and health care^[24] and seeks to address how psychological, behavioral, and cultural issues can cause health or illness. Certain behaviors can be harmful over time, and attention to health psychology from a psychological and biosocial perspective can lead to management.^[25] In fact, cognitive behavioral therapy is an approach that emphasizes maladaptive behaviors and individual beliefs. This treatment addresses dysfunctional emotions and maladaptive behaviors, and at the preventive level, the cognitive behavioral approach is associated with the core of health psychology, which is to maintain and promote health.^[26] Cognitive behavioral intervention for psychotropic perfectionism has an effective role in improving perfectionism, guilt, and obsessive-compulsive disorder through correcting people's underlying thoughts and ideas regarding the benefits and harms of perfectionist thoughts.^[27-29] This therapeutic method is performed collectively and individually. Group therapy helps people better understand each other's feelings and encourages people to express repressed emotions.^[30] Group therapy has more benefits for the participants and makes them more cohesive in the group members, as well as helping the group engage in behavioral tests, learn from others, and improve members' function to the therapists.^[17] Group therapies for perfectionists reduce the level of discomfort, suffering, and perfectionist behavior.^[22] Identifying and changing misconceptions can help perfectionists and is considered as one of the most important treatments for perfectionism.^[17]

Perfectionism leads to distorting reality from a person's point of view with its dysfunctional beliefs, which resulted in a wide-ranging impact on aspects of individual and interpersonal life. Identifying and changing misconceptions help perfectionists, and are regarded as one of the most important treatments for perfectionism. Cognitive behavioral interventions are one of the ways to change dysfunctional beliefs. Efficacy and prevention of recurrence are very effective in this method.^[31]

In a randomized controlled trial, Hunt *et al.* (2009) examined the effectiveness of self-care cognitive behavioral intervention on improving the QOL related to the health of inflammatory bowel patients. It was found that this treatment improved the symptoms of inflammatory bowel disease and increased the QOL related to patients' health.^[32] In addition, a meta-analysis was conducted to investigate the effectiveness of cognitive behavioral intervention for eating disorders on mental and health-related QOL. It was found that cognitive behavioral intervention led to significant and moderate improvements

in mental and health-related QOL after the intervention and follow-up period.^[33] Perfectionism is considered as a transdiagnostic process which is related to a wide range of psychological pathologies and other transdiagnostic processes. It was reported that Internet cognitive behavioral intervention affects reducing the symptoms of dysfunctional perfectionism. However, this treatment has a significant effect on other accompanying psychiatric symptoms such as obsessive-compulsive disorder, eating disorders, as well as other related transdiagnostic processes (self-esteem, intolerance of indecision, and self-compassion), leading to reducing and improving such symptoms.^[34]

Cognitive behavioral group intervention in Iran is shown on the QOL of patients with rheumatoid arthritis;^[35] reducing depression and increasing the QOL of patients with type 1 diabetes, depression, anxiety, and self-esteem of patients with type 1 bipolar disorder;^[37] life expectancy and spiritual well-being of mournful students;^[38] and the perfectionism and self-esteem among women with dissatisfaction with body image.^[39] However, a limited study with this treatment method in the group of perfectionists examined its effect on the QOL. Therefore, this study aimed to answer the research question of whether cognitive behavioral group therapy affects perfectionism and QOL? In fact, cognitive behavioral interventions followed one-way treatment of a problem, and in the meantime, no report based on health-based intervention, which is usually associated with increased QOL, was available. According to the studies, this study seeks to find the effectiveness of cognitive behavioral interventions based on improving the QOL and reducing negative perfectionism with the attitude of prevention and promotion of biopsychosocial health. This is the common denominator of cognitive behavioral approach and health-oriented interventions.

MATERIALS AND METHODS

The research method was semi-experimental as pretest-posttest with the control group. The statistical population consisted of all people with dysfunctional perfectionism who had been referred to the Center for Psychological Services and Counseling in Tehran and 30 participants were selected as the sample among the clients who had perfectionism through the volunteer sampling method. Then, these individuals were randomly assigned to two groups of 15 experimental and control subjects. The criteria for entering the study were as follows: having signs and symptoms of dysfunctional perfectionism at the discretion of the clinical psychologist, willingness to participate in the study, the age range of 19–51 years, having at least a third-grade secondary education, and not receiving psychotherapy or another medication program simultaneously (at least 1 month before the study). The following steps were taken to conduct this study:

1. Obtaining a research license from the University of the Research Unit and its approval by the Department of Psychology

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- Obtaining a license from the Tehran Welfare Organization and confirming it and referring it to Talieh East Tehran Counseling Center
- Coordination with the management of Talieh Clinic.

After the necessary coordination with the relevant officials of the Psychological Services and Counseling Centers of Tehran, the volunteer participants were randomly assigned to two groups with conscious consent while observing the entry and exit criteria and then the cognitive behavioral group therapy sessions were performed in two pretest and posttest stages after justifying the participants and the initial assessment with the research tools. The therapeutic period consisted of 8 group therapy sessions (120 min each session). The content of the sessions is based on the cognitive behavioral therapy is summarized in Table 1.

Research tools

Hill's perfectionism invoice

This scale is a self-reporting tool developed by Hill *et al.* (2004). The scale consists of 59 items and 8 subscales of interpersonal sensitivity, striving for excellence, order and organization, perceiving pressure from parents, purposefulness, and high standards for others. The scoring of items is performed through a four-point Likert ranking, completely opposite^[1] to completely agreeable.^[4] Kim *et al.* (2016) calculated the reliability coefficient of internal consistency and retesting of this scale between 0.71 and 0.91^[40] and its psychometric properties in Iran were reported as favorable and the Cronbach's alpha value was 0/79.^[41]

Quality of life questionnaire (WHO quality of life-BREF)

This questionnaire is a summary of WHOQOL-100. It measures four dimensions of physical health, mental health, social relations, and environmental health with 26 questions

and its psychometric characteristics were confirmed in Iran^[42,43] and other countries and the Cronbach's alpha value was 0/76.

This research has been approved by the Ethics Committee with the code (IR.Bmsu.rec1396.118) and has been registered in the country's clinical trial system with the ID (IRCT20181205041857N1).

RESULTS

The data were analyzed by SPSS software version 26 (IBM), and descriptive statistics (mean and standard deviation) and covariance statistical test were used. The significance level in the tests was considered to be 0.05.

The demographic results of the subjects indicated that 70% are female and 30% are male. The age range of the study was 19–51 years and the mean age and standard deviation of the experimental and control groups were 35.46 ± 7.30 and 28.47 ± 5.57 , respectively. The marital status of the sample was single (14 people, 46.7%), married (14 people, 46.7%), and divorced (2 people, 6.6%). In this experiment, 3 (10%), 3 (10%), 6 (20%), and 18 people (60%) had diploma, associate, undergraduate, and graduate degrees, respectively. The mean and standard deviation of perfectionism and QOL of the experimental and control groups are presented separately before and after the experiment in Table 2. The statistical test premises were verified with the Kolmogorov–Smirnov test to survey the data normality ($P < 0.05$). The box test was performed to investigate the variance–covariance matrix homogeneity, which is similar to the single-variable Levene's test. Further, the covariance–variance homogeneity was confirmed for two dependent variables in different groups ($P < 0.205$) and Bartlett's test of sphericity to investigate the premise of variables' correlation was confirmed ($P < 0.01$).

The results of covariance analysis in Table 3 indicated that cognitive behavioral intervention has a significant effect on perfectionism and QOL ($P < 0.001$). The effect size for the sources of change group is 0.513, which is a significant value, indicating that the independent variable has a significant effect on the dependent variables ($P < 0.001$). The results of Table 4 were examined by the single-variable covariance following the signing of the first hypothesis to investigate the smallest differences.

DISCUSSION

The present study examined the effectiveness of cognitive behavioral group therapy on perfectionism and QOL of people with dysfunctional perfectionism. It was found that cognitive behavioral group therapy reduced perfectionism and increased the QOL of the experimental group compared to that of the control group. These results are in line with the findings of other studies on the effectiveness of cognitive behavioral therapies on reducing depression and increasing the QOL of patients with type 1 diabetes,^[36] perfectionism

Table 1: Description of the content of closed sessions of cognitive behavioral therapy

Session number	Sessions' contents
Session 1	Welcoming, reviewing the sessions' structure, presenting the workbook and self-help, a booklet for daily recording of thoughts and the process of positive change
Session 2	Teaching the causes of perfectionism and identifying the underlying factors
Session 3	Investigating the aspects related to perfectionism and describing the revealing factors
Session 4	Teaching the executive mechanisms of perfectionism, including procrastination, performance checking, and avoidance
Session 5	Training and correcting cognitive errors, emotion regulation, attention expansion, problem-solving, time management, labor division, low-performance acceptance
Session 6	Presenting a rational-emotional model, cognitive triangle, and oppositionist
Session 7	Assessing realistic expectations, reviewing errors and problem-solving, group practice
Session 8	Reviewing exercises, assessing weaknesses, relapsing prevention program

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and self-esteem of women with dissatisfaction with body image,^[39] psychological well-being of perfectionist students,^[44] mental quality and QOL related to health,^[33] and symptoms of perfectionism and other accompanying

psychiatric symptoms such as obsessive-compulsive disorder and eating disorders.^[34]

Kiamarsi *et al.* examined the effectiveness of positive and cognitive behavioral therapies on the psychological well-being of perfectionist students, and found that positive and cognitive behavioral therapies increase psychological well-being and reduce the clinical perfectionism of perfectionist students. In addition, no significant differences were found in the effectiveness of these two therapies for research variables.^[44] Cognitive behavioral therapy is a semi-structured psychotherapy technique focusing on the processes which maintain compulsive behaviors, and this treatment approach focuses on dysfunctional emotions, maladaptive behaviors, and cognitive processes. They are obvious systematic methods aimed at replacing them with adaptive cognitive and behavioral processes. Specific treatment techniques vary depending on the nature of the patient's characteristics or problems; however, it usually includes memories of important events and the emotions, thoughts, and behaviors related to them; recording knowledge, assumptions, assessments, and beliefs which may be inconsistent; and trying to behave and show reactions in new ways. The behavioral symptoms and negative thoughts, causes of events, emotional signs of negative behaviors, and self-talk are identified in cognitive behavioral intervention and the ways to correct and get rid of misconceptions and replacing positive thoughts with negative ones are taught, leading to achieving cognitive behavioral therapy to reduce mental health problems and greater adaptability.^[45]

Shafran *et al.* developed a cognitive behavioral model of perfectionism in the context of the factors which perpetuate perfectionism, in which how perfectionism perpetuates various psychological disorders, explaining how perfectionism perpetuates various psychological disorders. In this model, the authors suggested clinical perfectionism, referring to the

Table 2: The mean and standard deviation of perfectionism and quality of life of experiment and control groups in pretest-posttest

Variable	Group	Mean±SD	
		Pretest	Posttest
Perfectionism	Experiment	166.4±21.39	132.33±27
	Control	165.2±20.84	17.01±21
Interpersonal sensitivity	Experiment	58.86±7.90	42.53±1
	Control	55.6±10	56.93±12
Striving for excellence	Experiment	22.6±3.12	16.60±4
	Control	22.06±3.12	16.60±4
Order and organization	Experiment	20.5±3.03	16.33±3
	Control	21.6±3.41	23.26±5
Perceiving pressure from parents	Experiment	18.73±4.9	16.64±4
	Control	17.93±4.2	18.80±3
Purposefulness	Experiment	24.86±2.4	22±4
	Control	24.46±2.74	24±5
The high standard for others	Experiment	23.33±3.94	18.73±3
	Control	23.93±3.94	18.73±3
Quality of life	Experiment	77.93±12.85	88.5±10
	Control	81.66±12.16	72±10
Physical health	Experiment	23.4±5.52	27±3
	Control	23.73±4.49	21±3
Mental health	Experiment	18.46±3.66	21±3
	Control	20.26±3.57	18±5
Social relations	Experiment	9±2.10	1±1
	Control	10.4±1.88	9.86±2
Environmental health	Experiment	27±4.85	28.7±4
	Control	27±5.28	22.5±4

SD: Standard deviation

Table 3: Results of multivariate covariance analysis of cognitive behavioral intervention on perfectionism and quality of life

Sources of change	Wilks' Lambda	F	Degree of freedom 1	Degree of freedom 2	P	Effect size
Preperfectionism	0.348	20.053	2	25	0.001	0.616
Prequality of life	0.536	10.82	2	25	0.001	0.464
Group	0.487	13.4	2	25	0.001	0.513

Table 4: Results of ANCOVA analysis of cognitive behavioral group intervention on perfectionism and quality of life

Sources of change	Variables	Total squares	df	Mean squares	F	Significance level	χ ²
Perfectionism pretest	Perfectionism posttest	53333.9	1	53333.12	13	0.001	0.0337
	Quality of life posttest	412	1	412	4	0.052	0.138
Quality of life pretest	Perfectionism posttest	2171	1	2171	5	0.029	0.017
	Quality of life posttest	351	1	351	3	0.071	0.12
Group	Perfectionism posttest	9452	1	9452	23	0.0001	0.474
	Quality of life posttest	2015	1	2015	20	0.0001	0.439
Error	Perfectionism posttest	10,506	26	404			
	Quality of life posttest	2572	26	98			
Total	Perfectionism posttest	27,649	26				
	Quality of life posttest	5068	26				

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over-reliance of self-esteem on pursuing high, spontaneous, and compelling standards in at least one important area of life.^[2] Error is considered as the core of the concept of perfectionism, which is closest to the symptoms of psychological trauma.^[34] Cognitive behavioral intervention reduces the person's sense of responsibility for the past negative events by reducing mental rumination. Furthermore, gradually inducing a deep sense of job satisfaction and increasing their flexibility reduces a person's sense of guilt, leading to an increase in QOL despite its negative and unpleasant consequences.^[17,22,46-49]

Perfectionists have fundamental and tenacious beliefs which make it difficult for a person to communicate with society. Cognitive behavioral intervention, with the aim of achieving these beliefs and changing dysfunctional thoughts, helps the individual achieve a normal level in regulating his thoughts and improves the QOL in perfectionists through improving their relationship with themselves and that of the society.^[48] Similarly, group therapy makes it possible for the patients to gather together, communicate with each other, and share similar conversations and experiences related to their similar problems, thereby venting their repressed emotions and feelings.^[45]

CONCLUSION

The present study is one of the main applications of health psychology. Because in health psychology, through psychotherapy, the person is on the path to recovery and health.

In general, it was found that cognitive behavioral group therapy reduces perfectionism and increases the QOL of perfectionists. Therefore, this treatment is used as one of the most effective psychological interventions along with other health-care services to improve and reduce perfectionism to prevent much mental and psychological health, including reduced life satisfaction, reduced well-being and QOL, stress, burnout, increased suicide rates, and psychological distress.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Frost RO, Marten P, Lahart C, Rosenblatt R. The dimensions of perfectionism. *Cogn Ther Res* 1990;14:449-68.
2. Shafran R, Cooper Z, Fairburn CG. Clinical perfectionism: A cognitive-behavioural analysis. *Behav Res Ther* 2002;40:773-91.
3. Senra C, Merino H, Ferreiro F. Exploring the link between perfectionism and depressive symptoms: Contribution of rumination and defense styles. *J Clin Psychol* 2018;74:1053-66.
4. Kim H, Seo J, Namkoong K, Hwang EH, Sohn SY, Kim SJ, *et al.* Alexithymia and perfectionism traits are associated with suicidal

- risk in patients with obsessive-compulsive disorder. *J Affect Disord* 2016;192:50-5.
5. Donahue JM, Reilly EE, Anderson LM, Scharmer C, Anderson DA. Evaluating associations between perfectionism, emotion regulation, and eating disorder symptoms in a mixed-gender sample. *J Nerv Ment Dis* 2018;206:900-4.
6. Limburg K, Watson HJ, Hagger MS, Egan SJ. The relationship between perfectionism and psychopathology: A meta-analysis. *J Clin Psychol* 2017;73:1301-26.
7. Egan SJ, Wade TD, Shafran R. Perfectionism as a transdiagnostic process: A clinical review. *Clin Psychol Rev* 2011;31:203-12.
8. Rozental A, Shafran R, Wade TD, Kothari R, Egan SJ, Ekberg L, *et al.* Guided web-based cognitive behavior therapy for perfectionism: Results from two different randomized controlled trials. *J Med Internet Res* 2018;20:e154.
9. Zarbo C, Brugnera A, Compare A, Candeloro I, Secomandi R, Betto E, *et al.* Perfectionistic traits and importance given to parenthood are associated with infertility-related quality of life in a sample of infertile women with and without endometriosis. *Sex Reprod Healthc* 2018;17:86-90.
10. Roshanfar A, Mohatari S, Padash Z. Effectiveness of educational based on quality of life therapy on perfectionism. *J Health Syst Res* 2013;9:886-95.
11. Williams CJ, Cropley M. The relationship between perfectionism and engagement in preventive health behaviours: The mediating role of self-concealment. *J Health Psychol* 2014;19:1211-21.
12. Yu JH, Chae SJ, Chang KH. The relationship among self-efficacy, perfectionism and academic burnout in medical school students. *Korean J Med Educ* 2016;28:49-55.
13. Enns MW, Cox BJ, Sareen J, Freeman P. Adaptive and maladaptive perfectionism in medical students: A longitudinal investigation. *Med Educ* 2001;35:1034-42.
14. Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. *Acad Med* 2006;81:354-73.
15. Ranjbaran R, Aliakbari M, Javidi N. The role of coping styles in predicting job burnout in middle aged by controlling the gender variable. *IIOAB J* 2016;7:231-6.
16. Egan SJ, Wade TD, Shafran R, Antony MM. *Cognitive-behavioral treatment of perfectionism*. ISBN 9781462527649, 402 Page, Guilford Publications; 2016.
17. Aghaie E, Roshan R, Mohamadkhani P, Shaeeri M, Gholami-Fesharaki M. Well-Being, Mental Health, General Health and Quality of Life Improvement Through Mindfulness-Based Interventions: A Systematic Review and Meta-Analysis, Iran Red Crescent Med J 2018;20:e16231. doi: 10.5812/ircmj.16231.
18. Ocampo AC, Wang L, Kiazad K, Restubog SL, Ashkanasy NM. The relentless pursuit of perfectionism: A review of perfectionism in the workplace and an agenda for future research. *J Organ Behav* 2020;41:144-68.
19. Nealis LJ, Mackinnon SP. "It was the best of times, it was the worst of times": A qualitative investigation of perfectionism and drinking narratives in undergraduate students. *Psychol Rep* 2018;121:1013-36.
20. Larsson E, Lloyd S, Westwood H, Tchanturia K. Patients' perspective of a group intervention for perfectionism in anorexia nervosa: A qualitative study. *J Health Psychol* 2018;23:1521-32.
21. Javidi N, Bolghanabadi M, Dehghani NM. The effectiveness of couples therapy based on happiness by cognitive-behavior method to increase sexual satisfaction in couples. *Journal of Family Health* 2013;1:6-14.
22. Høifødt RS, Strøm C, Kolstrup N, Eisemann M, Waterloo K. Effectiveness of cognitive behavioural therapy in primary health care: A review. *Fam Pract* 2011;28:489-504.
23. Shafran R, Wade TD, Egan SJ, Kothari R, Allcott-Watson H, Carlbring P, *et al.* Is the devil in the detail? A randomised controlled trial of guided internet-based CBT for perfectionism. *Behav Res Ther* 2017;95:99-106.
24. Johnston M. Health psychology: Current trends. *Psychologist* 1994;7:114-8.
25. Ogden J. *Health Psychology: A Textbook*. UK: McGraw-Hill Education; 2012.
26. Valentine EG, Bodill KO, Watson HJ, Hagger MS, Kane RT,

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- Anderson RA, *et al.* A randomized controlled trial of unguided internet cognitive-behavioral treatment for perfectionism in individuals who engage in regular exercise. *Int J Eat Disord* 2018;51:984-8.
27. Lowndes TA, Egan SJ, McEvoy PM. Efficacy of brief guided self-help cognitive behavioral treatment for perfectionism in reducing perinatal depression and anxiety: A randomized controlled trial. *Cogn Behav Ther* 2019;48:106-20.
 28. Arana FG, Miracco MC, Galarregui MS, Keegan EG. A brief cognitive behavioural intervention for maladaptive perfectionism in students: A pilot study. *Behav Cogn Psychother* 2017;45:537-42.
 29. Sadri SK, Anderson RA, McEvoy PM, Kane RT, Egan SJ. A pilot investigation of cognitive behavioural therapy for clinical perfectionism in obsessive compulsive disorder-CORRIGENDUM. *Behav Cogn Psychother* 2018;46:639-40.
 30. Holas P, Suszek H, Szaniawska M, Kokoszka A. Group cognitive-behavioral therapy for anxiety disorders with personality disorders in day clinic setting. *Perspect Psychiatr Care* 2016;52:186-93.
 31. Beck AT, Dozois DJ. Cognitive therapy: Current status and future directions. *Annu Rev Med* 2011;62:397-409.
 32. Hunt MG, Loftus P, Accardo M, Keenan M, Cohen L, Osterman MT. Self-help cognitive behavioral therapy improves health-related quality of life for inflammatory bowel disease patients: A randomized controlled effectiveness trial. *J Clin Psychol Med Settings* 2020;27:467-79.
 33. Linardon J, Brennan L. The effects of cognitive-behavioral therapy for eating disorders on quality of life: A meta-analysis. *Int J Eat Disord* 2017;50:715-30.
 34. Kothari R, Barker C, Pistrang N, Rozental A, Egan S, Wade T, *et al.* A randomised controlled trial of guided internet-based cognitive behavioural therapy for perfectionism: Effects on psychopathology and transdiagnostic processes. *J Behav Ther Exp Psychiatry* 2019;64:113-22.
 35. Soltanian G, Najafi M, Rafienia P, Mirfeizi Z. The effectiveness of cognitive-behavioral group therapy on quality of life in patients with rheumatoid arthritis. *J Pajoohande* 2016;21:122-9.
 36. Beigi A, Zeinali A. Effect of group cognitive-behavioral therapy on relieving depression and enhancing quality of life among patients with Type I diabetes. *J Diabetes Nurs* 2017;5:147-56.
 37. Jannati S, Faridhosseini F, Kashani A, Seyfi H. Efficacy of cognitive behavioral group therapy on depression, anxiety and self-esteem of patients with bipolar disorder Type I. *J Fundamentals Mental Health* 2017;19:113-8.
 38. Moradi M, Fathi D. Effectiveness of cognitive behavioral therapy on life expectancy and spiritual health of grieved students. *J Psychol Stud* 2016;12:63-82.
 39. Maddahi ME, Khalatbari J. Comparison the effectiveness acceptance and commitment group therapy and cognitive-behavior group therapy on perfectionism and self-esteem women with body image dissatisfaction. *J Clin Psychol Personal* 2019;17:89-100.
 40. Madahi ME, Samadzadeh M. The relationship between emotional intelligence and marital status in sample of college students. *Procedia Soc Behav Sci* 2013;84:1317-20.
 41. Jamshidy B. Validation of new measure of perfectionism. *J Int J Behav Sci* 2009;3:35-43.
 42. Nedjat S, Montazeri A, Holakouie K, Mohammad K, Majdzadeh R. Psychometric properties of the Iranian interview-administered version of the World Health Organization's Quality of Life Questionnaire (WHOQOL-BREF): A population-based study. *BMC health services research*. 2008;8:1-7.
 43. Skevington SM, Lotfy M, O'Connell KA. The World Health Organization's WHOQOL-BREF quality of life assessment: Psychometric properties and results of the international field trial. A report from the WHOQOL group. *Qual Life Res* 2004;13:299-310.
 44. Kiamarsi A, Narimani M, Sobhi Gharamaleki N, Mikaeeli N. The effectiveness of positive and cognitive-behavioral therapies on psychological well-being of perfectionist students. *J Psychol Stud* 2018;14:143-60.
 45. Khodayarifard M, Abedini Y. Cognitive-Behavioral Family Therapy for Patients with Musculoskeletal Pain. *Journal of Iranian Psychologists* 2006;2(8).
 46. Træen B, Finstad KS, Røysamb E. Perfect riders: Personality, perfectionism, and mental health in norwegian competition riders. *J Equine Vet Sci* 2019;75:82-9.
 47. Javidi N. The effectiveness of emotion-focused couples therapy (EFCT) in improving marital satisfaction and family behavior control. *Biannual J Appl Couns* 2014;3:65-78.
 48. Hewitt PL, Caelian CF, Chen C, Flett GL. Perfectionism, stress, daily hassles, hopelessness, and suicide potential in depressed psychiatric adolescents. *J Psychopathol Behav Assess* 2014;36:663-74.
 49. Najafi M, Soleimani AA, Ahmadi K, Javidi N, Kamkar EH. The effectiveness of emotionally focused therapy on enhancing marital adjustment and quality of life among infertile couples with marital conflicts. *Int J Fertil Steril* 2015;9:238-46.