Vol. 7, No.2, (2026), 88-98
© 2026, Summer
Published online September, 2026

Journal of Preventive Counselling (JPC)

Comparison of the Effectiveness of Acceptance and Commitment Therapy and Schema Therapy on Psychological Distress in Women after Hysterectomy

DOI: 10.22098/jpc.2026.4883

Sima Farzaneh

1. PhD student in Psychology, Department of Psychology, Ardabil Branch, Islamic Azad University, Ardabil, Iran

* Correspondence Author: sima.farzaneh@iau.ir

Abstract

Hysterectomy remains the second most commonly performed surgical procedure for women of reproductive age, second only to cesarean section. The purpose of this study is to compare the effectiveness of the acceptance and commitment therapy and schema therapy on psychological distress in women after hysterectomy. The present study is an experimental study with a pretest-posttest design with a control group. The statistical population of the study consists of all hysterectomies women in Ardabil, Iran, in 2020. Among them, 45 women were selected by available sampling and were studied in two experimental groups and a control group (15 people in each group) after random replacement. Data collection instrument was Depression Anxiety Stress Scale (DASS). The implementation processes of the acceptance and commitment therapy and schema therapy lasted for 8 sessions, 90 minutes each, and the control group did not receive any intervention. The results were analyzed using the multivariate analysis of covariance (MANCOVA). The results of the analysis of covariance showed that after controlling the pre-test effects, there was a statistically significant difference between the mean scores of the two experimental groups and the control groups in the total scores of depression variable (F = 85.976), anxiety variable (F = 155.158), and stress variable (F = 225.145). Considering the effectiveness of the protocols of acceptance and commitment therapy and schema therapy on research variables, the use of this intervention method as a strategy to prevent psychological distress in hysterectomies women is recommended by psychologists and counselors of medical centers.

Keywords: Acceptance and Commitment Therapy, Schema Therapy, Psychological Distress, Hysterectomy

Introduction

Hysterectomy remains the second most commonly performed surgical procedure for women of reproductive age, second only to cesarean section. This surgery is performed as a therapy to get rid of benign gynecological problems, such as abnormal and long-term bleeding and uterine prolapse. Many studies have shown evidence of an increased risk of depression after hysterectomy. Many women suffer from long-term depression due to loss of feminine traits, decreased sexual satisfaction, loss of fertility and menstruation (Karimi and Zarrin, 2019). Hysterectomy is known as one of the least invasive types of hysterectomy and leads to better results and fewer complications compared to other methods. This method should be considered as the preferred way of hysterectomy whenever possible. The benefits of vaginal hysterectomy include less pain, faster recovery, sooner return to work, lower costs, and fewer complications (Pillarisetty & Mahdy, 2020). Because the uterus is an important part of a woman's mental image of herself and her sexual image, some women fear that their feminine attractiveness to their sexual partner will diminish after surgery. Growing evidence from clinical studies shows that hysterectomized women suffer from mental and physical illnesses that often interact with each other (Costantini et al, 2013). Hysterectomy-related mental illnesses generally include depression, anxiety, and stress-related symptoms (Cigdem & Nuran, 2013).

Today we face a new generation of other therapies, including acceptance and commitment therapy. Acceptance and commitment therapy is part of the family of behavioral and cognitive therapies (Hayes et al., 2013) and its main purpose is to encourage people to adopt positive life values and accept undesirable experiences, including thoughts, feelings and emotions that are an inevitable part of life (Graham et al., 2016). Although acceptance and commitment therapy and cognitive-behavioral therapy overlap in some ways, acceptance and commitment therapy does not attempt to eliminate or correct negative thoughts or feelings, rather, it encourages the subject to accept the fact that these thoughts and feelings are inevitable, and at the same time tries to create a commitment in the individual to move toward the values she/he has identified and adopted (Wynne et al., 2018). The acceptance and commitment therapist's goal is not to reduce symptoms, but it is what we will achieve as a byproduct of the treatment process. Acceptance and commitment therapy changes the connection between problematic thoughts and feelings so that people do not perceive them as symptoms and even learn to perceive them as harmless (even if they are distressing and unpleasant) (Hayes et al., 2012). Empirical evidence on the effectiveness of this treatment for disorders such as depression has been identified (Mohabbat Bahar et al., 2014). Acceptance and commitment may help people to adjust to negative behaviors and automatic thoughts, which in turn leads to the regulation of positive health-related behaviors and improved quality of life. In other words, acceptance and commitment through the combination vitality and seeing experiences clearly and accepting them can make positive changes in adaptation and well-being and quality of life (Sadeghi, 2016). The results of Mohammadi and Sufi's (2020) studies showed that acceptance and commitment therapy has a significant effect on increasing the quality of life and reducing perceived stress in cancer patients. Li, Wu, Ni, Zhang, Wang et al (2021) reported in their study that acceptance and commitment therapy has beneficial effects on anxiety, depression, stress and hope in breast cancer patients. In

addition, Li, Guo, Li & Yang (2021) showed that acceptance and commitment therapy, in addition to reducing psychological distress, increases patients' quality of life.
On the other hand, in order to treat psychological problems such as depression and stress, in addition to drug therapies, several psychological therapies have been developed over the years. Although psychologists have been able to make great strides in counseling and psychotherapy using the principles of cognitive approach, combining both cognitive and behavioral approaches as schema therapy can have faster and deeper effects on clients. By combining these two approaches, many of the shortcomings in each have been eliminated and a more complete and practical method has been created (Mohammadnejad et al., 2018). Schema therapy is an integrated therapy, combining the theories and techniques of previous therapies, including cognitive-behavioral therapy, the theory of object psychoanalytic relations, attachment theory, and gestalt therapy (Lounch, 2017). Schema therapy is responsible for meeting basic unmet needs by increasing patients' insight into their reactions and increasing conscious control and providing emotional support as a limitation of retraining (Mandler, 2014). Peeters, Stappenbelt, Burk, van Passel & Krans (2021) reported in their study that schema therapy is effective in reducing maladaptive psychological function and increasing patients' adaptive states. Schema therapy is effective in reducing psychological distress (Koppers, Van, Peen & Dekker, 2021). Schaap, Chakhssi & Westerhof (2016) concluded in their research that schema therapy is effective in treating psychological disorders.
Therefore, according to the above research backgrounds, the researcher of the present study intends to apply these methods and measure the effectiveness of each of them on depression, anxiety and stress caused by hysterectomy in women to reach the conclusion that which of the mentioned methods can be more effective in treating depression, anxiety and stress caused by hysterectomy in women, and according to the findings of the results, provide scientific and practical solutions to reduce these symptoms.

Methodology

Participants

The present research method is experimental with pre-test-post-test design with a control group. The statistical population of this study consists of all hysterectomies women in Ardabil, Iran, in 2020. The sample of the present study consisted of 45 hysterectomies women who were selected from the statistical population by available sampling according to the admission of individuals to participate in the study in the first stage and having entry and exit criteria in the next stage, and then they were randomly divided into two experimental groups and a control group (30 women in experimental groups and 15 in the control group).
Inclusion criteria: 1) being a hysterectomies women; 2) not receiving any other psychological treatment while receiving these treatments; 3) willing to participate in the research; 4) having at least a middle school education to answer the questionnaire questions. Criteria for leaving: 1) immigration; 2) unwillingness to continue cooperation.

Instrumentation

Depression Anxiety Stress Scales (DASS)

This scale has 21 questions, developed by Lovibond & Lovibond in 1995, and includes 21 items that are answered with a score from 0 to 3 (0: Did not apply to me at all; 1: Applied to me to some degree, or some of the time; (2) Applied to me to a considerable degree or a good part of time; (3) Applied to me very much or most of the time). Numerous studies have been performed to obtain the reliability and validity of this scale. Cronbach's alpha coefficient of this scale in a sample of 717 people is as follows: depression 0.81, anxiety, 0.73, and stress, 0.81. In addition, in a sample of 400 people in Mashhad, Iran, Cronbach's alpha coefficient was 0.70 for depression, 0.66 for anxiety, and 0.76 for stress. Also, the criterion validities of this scale was obtained as 0.66 for depression, 0.49 for stress, and 0.67 for anxiety, which are significant (Abolghasemi and Narimani, 2006).

Session Number	Purpose	Content	Expected Behavior Change	Task Type
1	Expressing the generalities	Establishing relationships with members and familiarizing them with the research topic, responding to scale, and concluding contracts	Increasing the self-compassion	Practicing the group discussion and two-person and multi-person interactions
2	Providing a treatment strategy	Reviewing and discussing therapeutic techniques and evaluating their effectiveness	Increasing the altruism	Practicing the attention
3	Identifying the inefficient strategies and accepting upsetting events	Helping the detection of ineffective strategies for controlling and accepting painful personal events	Increasing the mindfulness	Practicing the active listening
4	Creating the cognitive awareness	Explaining the avoidance of painful experiences and being aware of its consequences, acceptance and relaxation training, changing language concepts	Increasing the attention retention	Practicing different patterns and roles in the group
5	Trying to change behavior	Introducing a three-dimensional behavioral model for the joint expression of behavior, emotions, psychological functions and striving for change	Increasing the emotional regulation	Practicing the acceptance of the problems and inconveniences
6	Creating the cognitive and emotional awareness	Explaining the concepts of role and context, seeing oneself as a context and making contact with oneself, being aware of different sensory perceptions	Increasing the self-control	Practicing the cognitive separation

7	Motivating for change	Explaining the concept of values, motivating change and empowering clients for a better life, practicing concentration	Increasing the cognitive assessment and decreasing self-judgment and isolation	Practicing the concept of living the present moment
8	Teaching the commitment to action and summarizing	Training the commitment, identifying behavioral plans according to values, summarizing sessions, conducting post-test	Extreme diagnosis based on a set of training programs	Practicing the commitment to the research

Table 1. Acceptance and Commitment Training Sessions (Adapted from Tarkhan, 2017)

Table 2. Schematic therapy skills training

Session Number	**Trained skills**
1	Establishing the initial communication and evaluation, introducing the researcher and members and reviewing the goals, focusing on the life history, performing pre-test and starting homework training
2	Teaching the schemas and coping styles, familiarizing with early maladaptive schemas, and explaining the coping styles
3	Cognitive strategies, presentation of the logic of cognitive techniques, war metaphor, new definition of schematic threatening evidence
4	Cognitive techniques, evaluation of the advantages and disadvantages of coping styles and responses, training in compiling and making educational cards
5	Experimental strategies, presenting the logic of experimental techniques and its objectives, mental imaging, relating past mental images to the present, behavioral pattern breaking, reviewing previous session assignments, and getting feedback from members
6	Providing the logic of behavioral techniques, increasing motivation to change the behavior, and assigning the assignments
7	Behavioral techniques, reviewing the assignments of past sessions and getting feedback, making important changes in life, and finally assigning the assignments
8	Summarizing the previous contents, reviewing the assignments of the previous session, collecting and concluding the final post-test and closing the sessions

Procedure

After coordination and obtaining permission from the university, 45 women were selected by the available sampling method to determine the sample size and were randomly assigned to two experimental groups and one control group. While justifying the subjects and stating the objectives of the research, they were asked to participate in the treatment course. It should be noted that written consents for participating in the research were received from the subjects. Before starting the treatment methods, all three study groups were evaluated in the pre-test phase and they were asked to answer the questionnaires. There were eight 90-minute sessions of the acceptance and commitment therapy and schema therapy, and they were conducted once a week. At the end of the treatment period, the treated group and the control group were re-evaluated in the post-test phase and then the obtained data were analyzed. Multivariate analysis of variance (MANOVA) was used to analyze the data.

Findings

Forty-five hysterectomies women in two experimental groups and one control group, each with 15 participants, participated in this study. The mean and the standard deviation of age was 49.60±2.87 in the acceptance and commitment therapy group, 50.00±3.38 in the schema therapy group, and 50.13±2.44 in the control group. The marital status of the women in the schema therapy, acceptance and commitment therapy, and control groups was as follows: 13 (86.7%) married, 1 (6.7%) widow, and 1 (6.7%) divorced. In terms of education, 9 people (60.00%) had elementary school, middle school, or high school educations, 4 people (26.7%) had a high-school diploma, and 2 people (13.3%) had a bachelor's degree. Regarding the distribution of disease types, the acceptance and commitment therapy, the schema therapy, and the control group included 9 women (60.00%) with abdominal diseases and 6 women (40.00%) with vaginal diseases.

Table 3. Mean and standard deviation of pre-test and post-test scores of the two groups of subjects for the research variables

Variable		Acceptance and Commitment therapy Group	Schema therapy group	Control group
		M±SD	M±SD	M±SD
Depression	Pre-test	11.00±2.67	11.26±2.05	9.66±2.91
	Post-test	6.26±2.28	8.60±1.91	9.33±2.87
Anxiety	Pre-test	11.26±2.28	11.26±2.05	9.46±1.64
	Post-test	6.53±2.29	8.60±1.91	10.73±2.34
Stress	Pre-test	9.46±1.76	9.53±1.80	9.46±1.64
	Post-test	5.86±1.59	6.86±2.19	8.86±1.45

The mean and standard deviation of the subjects in the two experimental groups and the control group for the variables of depression, anxiety and stress are shown in Table 3. As can be seen, the scores of the subjects in the experimental groups in the post-test phase show a decrease in depression, stress and anxiety.

Before using the multivariate analysis of covariance, its assumptions were tested. Kolmogorov-Smirnov test was used to evaluate the normality of data distribution. The results of this test shows that the distribution of scores of dependent variables in the pre-test-post-test is normal and the data have a normal distribution ($p > 0.05$). Levene test was used to check the homogeneity of variances, the results of which are shown in Table 3. In addition, the BOX test was used to test the assumption of homogeneity of covariances, and the results showed that the BOX value was not significant (BOX=27.30, F=2.03, P=0.18). Also, according to the correlation coefficients between the pre-test and post-test variables, the assumption of linearity between the covariates or auxiliary variables (pre-test scores) was realized, since the correlation coefficient between the covariates was not above 0.7, the assumption of multiple co-linearity was rejected.

Table 4. Levene test results on the assumption of equality of variances of the two groups in the scores of depression, anxiety and stress in the post-test stage

Variables	F	First degree of freedom	Second degree of freedom	Significance level
Depression	1.610	2	42	0.212
Anxiety	1.308	2	42	0.281

Stress	2.681	2	42	0.080

The results of Table 4 show that the F-values of Levene's test are not significant for any of the variables of depression, anxiety and stress. As a result, the assumption of equality of variances of the three groups is confirmed.

Table 5. Results of multivariate covariance significance test on depression, anxiety and stress

	Test	Value	F	Df assumption	Df Error	P	Eta-squared
Group	Pillai's Trace	0.963	11.768	6	76	0.00	0.48
	Wilks' Lambda	0.073	33.430	6	74	0.001	0.73
	Hotelling's trace	12.274	73.644	6	0.72	0.001	0.86
	Largest oot of the error	12.234	154.960	6	0.38	0.001	0.93

As can be seen in Table 5, the significance levels of all tests allow the use of multivariate analysis of covariance. These results show that the three groups are significantly different in at least one of the dependent variables. The Eta-squared shows that the difference between the groups with respect to the dependent variables is significant in general.

Table 6. Table 5. Results of the multivariate analysis of covariance (MANCOVA) to investigate the significant differences between the two experimental groups and the control group in the variables of depression, anxiety and stress

Source	The dependent variable	The sum of squares	DF	Mean square	F	Sig	Eta
Pre-test	Depression	0.141	1	0.141	0.187	0.668	0.05
	Anxiety	0.179	1	0.179	0.452	0.505	0.01
	Stress	0.187	1	0.187	0.129	0.721	0.003
Group	Depression	130.099	2	65.050	85.976	0.001	0.81
	Anxiety	123.170	2	61.585	155.458	0.001	0.89
	Stress	64.374	2	32.187	22.145	0.001	0.53

The results of the analysis of covariance in Table 6 show that after controlling the effects of pre-test, there was a statistically significant difference between the mean scores of the two experimental groups and the control group in the total scores of the depression variable (F = 85.976), the anxiety variable (F = 155.458) and the stress variable (F = 22.145).

Table 7. Results of Bonferroni post hoc test to compare the mean post-test scores of depression, anxiety and stress in experimental and control groups

Dependent variable	Group (I)	Group (J)	Mean difference (I-J)	standard error	Probability value
Depression	Acceptance and commitment therapy	Schema therapy	-1.985*	0.318	0.001
		Control	-4.280*	0.326	0.001

Anxiety	Schema therapy	Acceptance and commitment therapy	-1.989*	0.318	0.001
		Control	-2.290*	0.326	0.001
	Control	Acceptance and commitment therapy	4.280*	0.326	0.001
		Schema therapy	-2.290*	0.326	0.001
	Acceptance and commitment therapy	Schema therapy	-2.058*	0.230	0.001
		Control	-4.163*	0.236	0.001
	Schema therapy	Acceptance and commitment therapy	-2.058*	0.230	0.001
		Control	-2.105*	0.236	0.001
	Control	Acceptance and commitment therapy	4.163*	0.236	0.001
		Schema therapy	2.105*	0.236	0.001
Stress	Acceptance and commitment therapy	Schema therapy	-0.949*	0.440	0.112
		Control	-2.963*	0.452	0.001
	Schema therapy	Acceptance and commitment therapy	0.949	0.440	0.112
		Control	-2.013	0.452	0.001
	Control	Acceptance and commitment therapy	2.963	0.452	0.001
		Schema therapy	2.013	0.452	0.001

As can be seen in Table 7, there was no significant difference in the stress variable between the acceptance and commitment therapy group and the schema therapy group (P <0.05), but there was a significant difference between the acceptance and commitment therapy group and the control group, and the schema therapy group and the control group (P <0.05). In other words, both therapies had a significant effect on reducing stress, but these two therapies were not significantly different in terms of effectiveness. There was a significant difference in the depression and anxiety variables between acceptance and commitment therapy and schema therapy (P <0.05). There was also a significant difference between acceptance and commitment therapy group and the control group, and schema therapy group and the control group (P <0.05). In other words, both therapies had a significant effect on improving depression and anxiety. In addition, acceptance and

commitment therapy was more effective in improving depression and anxiety than schema therapy.

Discussion

The purpose of this study was to compare the effectiveness of acceptance and commitment therapy and schema therapy on psychological distress in women after hysterectomy. The results of analysis of covariance showed that both treatments had a significant effect on psychological distress (depression, anxiety and stress) in hysterectomized women after post-test. The results of Bonferroni post hoc test also showed that both treatments had a significant effect on reducing stress, but the two treatments were not significantly different in terms of effectiveness. There was a significant difference in the variables of depression and anxiety between acceptance and commitment therapy and schema therapy. In other words, both treatments have a significant effect on improving depression and anxiety. In addition, acceptance and commitment therapy is more effective in improving depression and anxiety than schema therapy.

The results obtained regarding the effectiveness of acceptance and commitment therapy on psychological distress are consistent with the results of the study by Mohammadi et al. (2020) which showed that acceptance and commitment therapy has a significant effect on increasing quality of life and reducing perceived stress in cancer patients, and also the results of a study by Lee et al. (2021) which reported that acceptance and commitment therapy has beneficial effects on anxiety, depression, stress and hope in breast cancer patients. To explain this assumption, it can be said that acceptance and commitment therapy uses a wide range of trainings to help people become aware and active, and ultimately develop what psychologists refer to as psychological resilience. In this way, acceptance and commitment therapy shifts the focus from reducing symptoms to increasing the process of psychological resilience, including the engagement in acceptance and awareness of accepting valuable behaviors. In these training sessions, participants were encouraged to choose important values and even act on them in the face of unpleasant thoughts or feelings. This requires a more systematic program including the various skills that participants learn in the acceptance and commitment intervention, such as acceptance, cognitive defusion, and mindfulness. Our study shows that when people are able to incorporate these skills into their daily lives, they will experience less psychological distress.

Also, the results obtained regarding the effectiveness of schema therapy on psychological distress are consistent with the results of the studies by Peters et al. (2021), Coopers et al. (2020) and Shop et al. (2016) which concluded that schema therapy is effective in reducing maladaptive psychological function and increasing patients' adaptive states.

To explain this hypothesis, it can be said that schema therapy begins with recognizing a series of general emotional needs and it strengthens patients' emotionally healthy state to deal with situations where early maladaptive schemas are stimulated in a more functional way in the individual. It can also be said that schema therapy helps patients to understand their emotional needs so that in threatening situations, they can manage and control their distress instead of using negative coping strategies.

In addition, the results of Bonferroni post hoc test showed that the effectiveness of acceptance and commitment therapy in improving depression and anxiety is higher than schema therapy. This difference can be explained by the fact that the possible cause of this effect is the changes in the attitudes and beliefs of this group of women (compared to past solutions) in the first sessions of the acceptance and commitment therapy towards the cause of psychological distress (depression and anxiety) according to the purpose of treatment and training to increase psychological resilience when facing with psychological distress, and also the acceptance of this new attitude by women.

Conclusion

The limitation of the present study to hysterectomies women in Ardabil, Iran, limits the generalization of the results to other hysterectomies women in other geographical areas. In addition, the implementation of acceptance and commitment therapy and schema therapy were done by the researcher, which can create bias in the results. It is suggested that similar studies to be performed in other geographical areas on a similar sample group and its findings be compared with the results of the present study. To eliminate the researcher bias, the treatment protocol should be implemented by someone other than the researcher. Practically, due to the effectiveness of treatment protocols based on acceptance and commitment therapy and schema therapy on research variables, the use of this intervention method as a strategy to prevent psychological distress in hysterectomy women is recommended by psychologists and counselors of medical centers.

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

ORCID: 0000-0002-6998-8390

References

Cigdem, G., & Nuran, K. (2013). The relationship between self-esteem and self-care agency in hysterectomy patients. J Nurs Midwif Res, 2(7), 89-95.

Costantini, E., Porena, M., Lazzeri, M., Mearini, L., Bini, V., & Zucchi, A. (2013). Changes in female sexual function after pelvic organ prolapse repair: role of hysterectomy. Int Urogynecol J; 24(9): 1481-1487.

Graham, CD., Gouick, J., Krahé, C, & Gillanders, D. (2016). A systematic review of the use of Acceptance and Commitment Therapy (ACT) in chronic disease and long-term conditions. Clin Psychol Rev, 46: 46-58.

Guo, L., Li, M., & Yang, K. (2021). Effectiveness of Acceptance and Commitment Therapy for mental Illness in cancer patients: A systematic Review and meta-analysis of randomized controlled trials. International Journal of Clinical Practice, e13982. Research.

Hayes, S.C., Levin, M.E., Plumb-Vilardaga, J., Villatte, J.L., Pistorello, J. (2013). Acceptance and Commitment Hayes Therapy and Contextual Behavioral Science: Examining the Progress of a Distinctive Model of Behavioral and Cognitive Therapy. Behav Ther; 44, 180–198.

Hayes, S.C. Pistorello, J. & Levin, M.E. (2012). Acceptance and commitment therapy as a unified model of behavior change. The Counseling Psychologist, 40(7), 976-1002.

Karimi, F., & Zarrin, Z. (2019). Examining The Prevalence of Depression after Abdominal and Vaginal Hysterectomy, The second annual student research conference of the Iranian operating rooms, Gonabad University of Medical Sciences, Gonabad, Iran.

Koppers, D., Van, H., Peen, J., & Dekker, J.J. (2021). Psychological symptoms, early maladaptive schemas and schema modes: predictors of the outcome of group schema therapy in patients with personality disorders. Psychotherapy Research, 31(7), 831-842.

Li, H., Wu, J., Ni, Q., Zhang, J., Wang, Y., & He, G. (2021). Systematic Review and Meta-Analysis of Effectiveness of Acceptance and Commitment Therapy in Patients with Breast Cancer. Nursing Research, 70(4):152-160.

Lounch, I. (2017). Effects of Schema Therapy vs. Cognitive Behavioral Therapy in Patients with Depression. University of Munich.

Lovibond, P.F., & Lovibond, S.H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. Behaviour research and therapy, 33(3), 335-343.

Mandler, J.M. (2014). Stories, scripts, and scenes: Aspects of schema theory. Psychology Press.

Mohabbat Bahar, S., Maleki, F., Akbari, M.E., and Moradi Joo, M. (2014). The Effectiveness of Mindfulness Group Training and Acceptance and Commitment Therapy on Increasing the Quality Of Life of Women with Breast Cancer, 10th International Cancer Congress.

Mohammadi, S.Y., & Soufi, A. (2020). The effectiveness of acceptance and commitment treatment on quality of life and perceived stress in cancer patients. Quarterly Journal of Health Psychology, 8(32), 57-72.

Mohammadnejad, G., Tadayon Najafabadi, M., Kamili Thani, H., and Haghighizadeh, M.H. (2018). Examining the Effect of Counseling with Cognitive-Behavioral Approach on Self-Esteem of Hysterectomies Women of Reproductive Age, Journal of Mazandaran University of Medical Sciences, 29(17), 67-80.

Peeters, N., Stappenbelt, S., Burk, W. J., van Passel, B., & Krans, J. (2021). Schema therapy with exposure and response prevention for the treatment of chronic anxiety with comorbid personality disorder. British Journal of Clinical Psychology, 60(1), 68-76.

Pillarisetty, L. S., & Mahdy, H. (2020). Vaginal Hysterectomy. Stat Pearls.

Sadeghi, M. (2017). The Effectiveness of Acceptance and Commitment Therapy on Anxiety, Depression and Quality of Life in Women with Breast Cancer, M.Sc. Thesis, Islamic Azad University, Shahroud Branch, Shahroud, Iran.

Schaap, G. M., Chakhssi, F., & Westerhof, G. J. (2016). Inpatient schema therapy for nonresponsive patients with personality pathology: Changes in symptomatic distress, schemas, schema modes, coping styles, experienced parenting styles, and mental well-being. Psychotherapy, 53(4), 402-409.

Wynne, B., McHugh, L., Gao, W., Keegan, D., Byrne, K., Rowan, C., & Mulcahy, H. E. (2019). Acceptance and commitment therapy reduces psychological stress in patients with inflammatory bowel diseases. Gastroenterology