The Effectiveness of Acceptance and Awareness-based Therapy on Sexual Self-Esteem and Infertility Stress in Infertile Women in Shiraz

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Abstract
This study aims to see how successful a treatment based on acceptance and awareness was at improving sexual self-esteem and reducing infertility stress in infertile women in Shiraz. In terms of purpose, this study is applied. The current study used a quasi-experimental design with a pretest, posttest, and control group, as well as a one-month follow-up. Infertile women from Shiraz were referred to infertility clinics in 2021, and 24 of them were chosen as the sample group, divided into two groups of 12 individuals. A female sexual self-esteem questionnaire (Zina and Schwarz) was utilized to gather data for this study. These tests have been shown to have acceptable validity and reliability in studies. The findings revealed that acceptance and awareness-based treatment significantly impact sexual self-esteem and infertility stress in infertile women in Shiraz.

Keywords: effectiveness of therapy, acceptance and awareness, sexual self-esteem, infertility stress, infertile women

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Introduction and Problem Statement

The ACT (commitment and acceptance therapy) is a sort of attention-awareness behavior therapy that defies many of Western psychology's basic rules. This treatment includes an eclectic mix of metaphor, paradoxical sentences, attention-awareness abilities, and various empirical exercises and Value-driven behavioral interventions. Acceptance and awareness-based therapy has been shown to be useful in multiple clinical issues, including depression, obsessive-compulsive disorder, workplace stress, end-stage cancer stress, anxiety, post-traumatic stress disorder, anorexia nervosa, heroin addiction, and even schizophrenia. According to one study, just four hours of acceptance and commitment therapy cut the rate of returning to the hospital for schizophrenia by half (Ross Harris, 2014).

The purpose of acceptance and awareness therapy is to live a full and meaningful life while accepting that suffering is an unavoidable part of existence. Acceptance and awareness-based therapy (ACT) is an intriguing acronym since it is about taking effective action while being totally

committed and directed by our core beliefs. Creating a meaningful life is possible only by taking conscious acts. Of course, as soon as we begin to live such a life, we will encounter a slew of challenges in the form of unwanted and unpleasant internal experiences (thoughts, images, feelings, bodily sensations, impulses, and memories). Acceptance and awareness-based therapy teaches us how to handle our inner experiences by teaching us effective attention-awareness skills (Ross Harris, 2014).

Self-esteem is a meta-ethical attribute influenced by ethical action and one of the key variables for adaptability. It is also one of the main components of research on infertility stress. Furthermore, self-esteem is an important aspect of growth linked to both the behaviors established in the family system (Amato & Fluor, 2007) and the individual's beliefs and feelings (Santrook, 2007). Self-esteem allows one to learn about oneself because self-esteem is our overall assessment of our qualifications, abilities, values, physical components, responses to others, and opinions about our belongings. (Cassidine quotes from Janbozorgi 2001; Tori and Harris, 2008)

Sexual self-esteem, which impacts sexual behaviors and is the emotional response of person to the evaluation of his own attitudes, emotions, and sexual behaviors, is one of the different elements of self-esteem. (Beth Antonie & Julind & Michelle, 2010)

In most cultures, fertility is greatly valued, and the desire to have a baby is one of the most basic human stimuli. When a couple's attempt to fall pregnant and have a child fails, it can be a terribly destructive experience (Khodakarami et al., 2009). It is a universal desire to have a child. Even though cultural, social, and economic factors influence life and, as a result, pregnancy and child growth have become more expensive and problematic in recent years, pregnancy and childbirth are major events in many people's lives (Fiedler and Bernstein, 2009). The birth of a child is often seen as a confirmation of a woman's identity. When a woman can give birth to a child, she considers herself perfect. A woman's biological, psychological, and social success are largely determined by her ability to have children, and she feels inadequate if she lacks this power (Bahrami et al., 2009).

After one year of regular and unprotected intercourse, infertility is defined as failing to conceive (Benson, 1983). Infertility stress is a set of symptoms that people experience after not conceiving a child and it is similar to many of the symptoms of post-traumatic stress disorder. It is particularly hold true for thoughts and feelings about infertility, as well as the effort to overcome these thoughts and feelings. Infertile couples experience difficulties with sleep, work, relationships (especially marital), painful sensitivity to any environment, and reproductive environment (Lin, 2002). When a person's pituitary gland is stimulated by stress, it produces a large amount of prolactin, which causes ovulation problems (Choobforoushzadeh, 2010). Infertility is an unfortunate and unexpected occurrence that can cause a great deal of stress for those affected. Given the country's infertility problem, it's critical to find coping strategies and stress relief for infertile people, particularly women, who, according to studies, have a lower level of adaptation (Eftari et al., 2019).

Because infertility is caused by malfunctions in physiological processes and falls under the domain of medical science. It also has psycho-social implications and falls under the domain of behavioral and social sciences (Karami Nouri et al., 2001). As a result, the research's main question is whether the acceptance and awareness approach affects infertile women's sexual self-esteem and infertility stress.

Theoretical Frameworks

Infertility is influenced by physiological factors and falls under the domain of medical science. Still, it also has psycho-social aspects and falls under the field of behavioral and social science. Psychological factors can cause infertility, and infertility can have many psychological consequences, according to a growing number of studies. Infertility is a stressful factor that harms marital relationships, putting the quality of the relationship in jeopardy. Infertility is a significant factor in many people's personal lives around the world, in addition to being a reproductive health issue. One of the new behavioral therapies is acceptance and commitment-based therapy (ACT), which is pronounced as a word. By incorporating acceptance and mindfulness interventions into leadership and change, this therapy assists clients in living a vibrant, purposeful, and meaningful life. As an alternative to more traditional forms of psychotherapy, acceptance and commitment-based therapy (Hayes & Etrosal, & Wilson, 1999) has been developed (classical cognitive-behavioral therapy). This treatment focuses on reducing the intensity and frequency of annoying emotions and thoughts. The ACT emphasizes increasing behavioral efficiency despite unpleasant thoughts and feelings rather than decreasing the latter. Put another way; the ACT therapist does not attempt to change the client's troubling thoughts or alleviate unpleasant emotions. Although, accidently the therapist's actions when they yield results may cause psychological turmoil that fails to correct the client's feelings and thoughts, appear strange, still; there is a research-based rationale for doing so. The central assumption of ACT is that a significant amount of psychological distress is a normal part of everyday life experiences. This assumption runs counter to current clinical psychology and psychiatric thinking. When in 2005, Steven Hayes published "Get out Of Your Mind and into Your Life," the first book for non-specialist readers (Hayes & Smith, 2005), and Time magazine published articles on the ACT (Cloud, 2006), the most significant breakthrough in the basic knowledge of acceptance and commitment therapy took place. Although the ACT is new to major publishers, it has been debated among academics and introductory research in academic journals and professional meetings since the early 1980s. However, by 2007, over 10,000 mental health professionals had been trained in the ACT, and over 100 experimental studies had been published. These studies looked at the impact of ACT processes and their application in the treatment of specific mental health issues, as well as the communication theory framework and the main linguistic and cognitive model that underpins ACT (Hayes et al., 2006). These studies are still ongoing, but preliminary findings suggest that ACT can help with a wide range of clinical issues.
ACT studies have been done on the different kinds of mental disorders and typical clinical issues that lead people to psychotherapy. Social anxiety disorder, depression, multiple drug abuse, agoraphobia, psychosis, workplace stress, chronic pain, smoking, hair pulling obsession, and self-harm are some of the clinical areas of interest to ACT, and research has been published on the results of their therapy with ACT (Hayes et al., 2006). Furthermore, several researchers have looked into ACT-specific processes.

Theoretical Definitions

- Acceptance and awareness-based therapy: In 1999, acceptance and awareness-based therapy was introduced. This therapy was developed as an alternative to more standard forms of psychotherapy. This treatment focuses on reducing the intensity and frequency of bothersome feelings and thoughts. ACT focuses on improving behavioral efficiency

despite the unpleasant thoughts and emotions rather than alleviating recent cases. (Steven Hayes et al., 1999).

- Sexual self-esteem: Healthy sexual actions are linked to sexual self-esteem. Individuals' effective reactions to personal assessments, as well as their minds and ideas about gender, emotions, and behaviors, are referred to as sexual self-esteem. Emotional reactions refer to how a person feels due to these assessments. Good emotions such as satisfaction, pride, and security are examples of positive reactions, while despair, dissatisfaction, nervousness, and insecurity are examples of negative emotions. Personal and emotional evaluations are a person's assessments of how they will act based on various factors. There are no specific criteria in place yet. It is presumed that a person possesses or is working toward a set of standards in terms of gender thoughts, feelings, and gender behavior. These standards may include requirements, expectations, desires, objectives, and values that are influenced in part by early learning about gender, physical development, stimulus-response, and their grasp of family expectations and standards, social and socio-cultural levels (Zina and Schwarz, 1996). Physical disabilities, diseases, infertility, sexual harassment in childhood, and puberty are factors that might negatively impact sexual self-esteem. The majority of research has focused on how various life experiences affect sexual self-esteem (Zina and Schwarz, 1996).
- Infertility stress: It is a set of symptoms that develops as a result of infertility. If this stress is too much, the menstrual period will stop completely. Stress also lowers sperm count and libido, resulting in fewer sexual encounters and a lower likelihood of becoming pregnant (Choobforoushzadeh, 2010).
- Infertile women: It's a year of unprotected sexual activity that doesn't result in pregnancy (Benson, 1982). An infertile individual lacks the ability to reproduce and knows about their infertility condition for at least a year and has been diagnosed as infertile by a specialist.

Local Researches

Rezaie et al (2021) studied the role of infertility stress and sense of failure in forecasting quality of the infertile women's marital relationship. The results suggested that increased infertility stress and sense of failure result in reduced quality of infertile women's marital relationship. Therefore, infertility stress and sense of failure play a decisive role in quality of infertile women's marital relationship.

Sharifi (2020) studied the correlation of infertility period with self-esteem and depression of female infertile patients attending to the infertility clinic. This cross-sequential analytic study included the infertile women, who attended to the infertility clinic of Shahid Motahari Hospital in Jahrom in 2019. The statistical population consisted of 160 randomly selected patients. The data collection tools included Demographic Information Questionnaire, Coopersmith's Self-Esteem Inventory, and Beck Depression Inventory (BDI-II). The questionnaires were delivered to the participants after filling the respective consent form. The collected data was entered to SPSS Statistics 21.0 to perform Pearson's Correlation Test, Regression Test, Independent T-Test, and Analysis of Variance (ANOVA).

Conclusion: Increased duration of infertility results in physiological problems such as depression, and low self-esteem of the women. The correlation between duration of infertility and infertile women's depression and low self-esteem is a considerable concern.

Foreign Studies

Zettle (2015) studied the effect of Acceptance and Commitment Therapy (ACT) on depression and showed that the experimental group experienced a milder depression than the control group after interference and during the follow-up session.

Katterman (2014) studied effectiveness of acceptance therapy in preventing weight gain of the young women prone to obesity. The results showed that no significant difference was observed between the self-efficacy variables in the posttest stage.

Vilsoon (2014) studied group training of acceptance and commitment therapy for reducing anxiety. The results showed that group training of acceptance and commitment therapy is an effective way of reducing anxiety and depression of the infertile women.

Methodology

The present study is a quasi-experimental research consisting of pretest, posttest, and follow-up with control group. The following table shows diagram of the study.

Groups	Pretest	Independent Variable	Posttest	Follow-Up
Experimental	T1	X	T2	T3
Control	T1	-	T2	T3

The statistical population consisted of 1540 infertile women who attended to infertility clinics of Shiraz in 2021. Twenty four patients were selected as samples, and the samples were divided into two groups of twelve. Convenience sampling method was used in this study; i.e. twenty four patients were selected from a statistical population of 1540 patients; and the samples were divided randomly into experimental group (12 patients) and control group (12 patients). The following questionnaires were used to assess the sexual self-esteem and infertility stress of the patients.

1. **Sexual Self-Esteem Inventory for Women**

This inventory contained 81 questions to assess the women's affective reaction to their self-appraisals of sexual thoughts, feelings, and behaviors. The inventory, developed by Zeanah and Schwarz in 1999, and contained five subscales including skill/experience, attractiveness, control, moral judgement, and adaptiveness.

Validity and internal consistency (Cronbach's Alpha) of the inventory was reported 85-94% by the authors in 1999, which confirms reliability of the questionnaire.

2. **Newton's Infertility Stress Inventory**

The Infertility Stress Inventory, originally known as Fertility Problem Inventory (FPI) was developed by Newton et al in London Health Science Center. The inventory contains 46 items, which are scored in a six-point Likert scale, from "I fully disagree" to "I fully agree". This scale consists of fine subscales including social concern, sexual concern, relationship concern, rejection of parenthood, and need for parenthood.

Validity and reliability of this tool was assessed by Newton et al in 1999.

A factor analysis was performed to assess validity of the five subscales and face validity of the inventory, and the translated text was approved by six professors from Allameh Tabataba'i University and Tarbiat Moallem University and a professor from Tehran Psychiatric Institute. Reliability of the inventory was also assessed using Cronbach's alpha method and the results were 87% for social concerns, 77% for sexual concerns, 78% for relationship concerns, 75% for rejection of parenthood, and 84% for the need for parenthood, whereas the total score was 91%.
After selecting the research subject, the respective information were collected from library sources (books, dissertations, and articles). After collecting the data, the statistical population, consisting of 1540 infertile women who had attended to the fertility clinics of Shiraz in 2021 were identified, and 24 patients were sampled randomly. Afterward, the pretest was performed using infertility stress and sexual self-esteem inventories filled by the experimental group, and the treatment protocol was prepared to start the therapy.
The experimental group attended eight 90-minute sessions, organized twice a week, whereas the control group were given no Acceptance and Commitment Therapy (ACT). Contents of the therapy sessions were as follows:

Detailed ACT Protocol (Hayes 2002)

First Session: The patients are welcomed and introduced to therapist and each other. They describe their feelings before attending the session, their reasons for attending the session, and their expectation of the session. They also talk about their similar experiences. It is necessary to explain a set of rules that must be observed during the therapy sessions such as punctuality, doing the assignments, confidentiality, and mutual respect. The research subject is also described in this session and the participants are requested to think about the subject. Afterward, general contents about acceptance and commitment therapy and the expected results are explained and pretest is performed.

Second Sessions: Explaining why psychological interference is needed; promoting hope and expectation of reducing the stress by therapy; explaining the principles of acceptance and recognizing feelings and thoughts about the problem; teaching how to accept thoughts as thoughts, feelings as feelings, and memories only as memories; assigning homework on self-acceptance and feelings caused by the disease.

Third Session: Checking the homework from previous session; talking about the participants thoughts and feelings; teaching how to accept thoughts and feelings without making judgements; giving homework on to what extent the participants accept themselves and their own thoughts, and to what extent they accept the others and their thoughts.

Fourth Session: Checking the homework from previous session; presenting the mindfulness technique and focusing on breathing; presenting the techniques of being at the present moment and thought stopping; emphasizing the principle of acceptance in recognition of thoughts and feelings; emphasizing the recognition of feeling from a different approach; homework: look at the (bothering) events differently and do not assume our problems the end of the way.

Fifth Session: Checking the homework from previous session; teaching the difference between acceptance and submission, and how to accept what we cannot change; introducing the concept of judgement and encouraging the participants not to judge their feelings; teaching the participants how to be mindful all the time, know their feelings, and do not judge their feelings; homework: mindfulness with acceptance and without judgment.

Sixth Session: Request for feedback on the training process; asking the participants to describe their feelings and emotions about homework of the previous session; teaching the principle of commitment and explain about necessity of this principle in the treatment/training process (commitment means to be committed to do what we have selected as the right way of achieving peace of mind or any desirable event in life); presenting the selective attention technique to defeat the unconscious negative thoughts; exercising self-consciousness and body scanning techniques.
Seventh Session: Asking for feedbacks and querying the participants unsolved problems, identifying behavioral schemes regarding the accepted issues and promoting commitment to them; promoting the capacity of selecting the best – and not the most practical – act among different alternatives.
Eight Session: Checking the homework; summarizing the contents; obliging the participants to do their homework after the therapy sessions; giving feedback to the participants and appreciating their attendance; performing the posttest.
The data was described using average and standard variation techniques, and analyzed using inferential methods, including covariance and multi-variable covariance analysis in SPSS 22 software.

Descriptive results

Table 1: posttest statistic indices of dependent variables in control and test group

Variable	Group	Mean	Standard deviation
Skill and experience	Test	49.15	7.19
	Control	32.66	5.21
Attractiveness	Test	48.36	5.04
	Control	32.33	3.73
Control	Test	48.06	5.29
	Control	30.00	6.69
Ethical judgment	Test	50.53	6.92
	Control	33.26	4.68
Compatibility	Test	48.73	6.12
	Control	33.93	4.63
Social concern	Test	32.53	6.34
	Control	49.53	3.31
Sexual concern	Test	30.60	3.50
	Control	45.15	4.94
Communicational concern	Test	30.00	5.37
	Control	50.80	4.03
Concern with lifestyle	Test	28.66	2.31
	Control	44.80	5.49
The need to become a parent	Test	31.00	6.25
	Control	48.40	4.80

As observed, Table 1 demonstrates the mean posttest scores of the dependent variables in the control and test groups, indicating that the two groups are different in terms of sexual self-esteem and infertility stress.

Table 2: posttest statistic indices of dependent variables in control and test group

Variable	Group	Mean (adjusted)	Standard error
Skill and experience	Test	47.71	2.39
	Control	34.08	2.39
Attractiveness	Test	45.35	1.86
	Control	35.44	1.86
Control	Test	48.61	2.74
	Control	29.43	2.74
Ethical judgment	Test	48.75	2.32
	Control	35.15	2.32
Compatibility	Test	47.26	2.44
	Control	35.18	2.44
Social concern	Test	31.95	2.41
	Control	50.11	2.41
Sexual concern	Test	33.88	1.74
	Control	41.98	1.74
Communicational concern	Test	34.91	1.86
	Control	45.54	1.86
Concern with lifestyle	Test	29.07	1.78
	Control	44.39	1.78
The need to become a parent	Test	34.16	2.19
	Control	45.24	2.19

As Table 2 indicates, the two groups of test and control were different in posttest in terms of sexual self-esteem and infertility stress after adjusting the scores. A MANCOVA analysis was performed using the Bonferroni correction to investigate whether these differences were statistically significant.

Inferential results

The primary hypothesis: treatment based on acceptance and awareness influences sexual self-esteem and infertility stress in infertile women.

Covariance (MANCOVA) analysis was conducted to examine the hypothesis above. This test is a statistical method investigating the influence of the independent variable on the dependent variable while eliminating the other variable, and demonstrates the relationships between various dependent variables as well. Thus, it can examine the differences between various levels of a dependent variable and assess their differences in new combinations of several dependent variables. Multivariate covariance analysis also reveals the results of the Pillai's trace, Wilks Lambda, Hotelling's Trace, and Roy's Largest Root, all of which indicate whether the differences between various levels of the independe3nt variable leave significant effects on the combination

of dependent variables. The F values reported by these four statistical tests will be the same if the desired factor has two levels. Different F values obtained from the tests usually indicate that the variable has more than two levels. Most researchers report the Wilks Lambda which has been reported in the present study as well.

Table 3: the study of the interaction effect of the independent variable and pretest

Variable	Sum of squares	Degree of freedom	Mean square	F	Significance level
Sexual self-esteem	859.12	2	429.75	1.99	0.16
Error	5406.73	25	216.11		
Infertility stress	995.98	2	497.98	3.43	0.04
Error	3620.84	25	144.83		

The F values obtained to examine the interaction between the independent variable and pretest were not statistically significant (P>0.05). In other words, control and test groups had similar sexual self-esteem and infertility stress in the pretest. The assumption of regression homogeneity is thus confirmed.

Table 4: the box test for matrix heterogeneity investigation

s MBox	106.81
F	1.17
Df_1	55
Df_2	2531.77
Sig	0.17

As the box test indicates, the assumption of the equivalence of covariance-variance matrices is confirmed given the insignificance of 0.30≤, F (6, 5680.3) =120. The results of the multivariate covariance analysis can be thus reported.

Table 5: Lavene's test for variance homogeneity or equality

Variable	f	df1	df2	Sig
Skill and experience	0.33	1	28	0.56
Attractiveness	1.78	1	28	0.18
Control	6.21	1	28	0.01
Ethical judgment	0.06	1	28	0.78
Compatibility	0.02	1	28	0.86
Social concern	2.52	1	28	0.12
Sexual concern	0.12	1	28	0.73
Communicational concern	0.44	1	28	0.49
Concerns with lifestyle	2.80	1	28	0.10
Concern with the need to become a parent	0.00	1	28	0.99

Levene's test examines the hypothesis of variance homogeneity. Given the insignificance of the results of the statistic obtained from Levene's test, variance homogeneity between dependent variables is confirmed and the MANCOVA test can be performed.

Table 6: Composite effect size test based on Wilkes lambda

Test	Value	F	df1	df2	sig	ή
Wilkes lambda	0.184	3.04	10	9	0.002	0.67

According to the table above, treatment based on acceptance and awareness left a significant composite effect on sexual self-esteem and infertility stress in infertile women ($P<0.01$). Eta square values observed in the table above indicate the portion of the variance associated with the new composite variables. The rule of thumb is that values larger than 0.14 indicate great impacts. Eta indicates the intensity of this impact to be 0.42, which reveals its extremely great influence. The significance of the impact of treatment based on acceptance and awareness on sexual self-esteem and infertility stress in infertile women indicates that the mean values of dependent variables vary between the groups, and treatment based on acceptance and awareness influences sexual self-esteem and infertility stress in infertile women.

Conclusion

Given the impact of infertility on women's self-image and body image, supporting and listening to each of these women admitting their fears of facing their current problem is in the best interest of their emotional health and helps reduce their grief. Studies suggest that educational and consultation programs contribute to the sexual self-esteem of infertile women and improve their sexual performance. Thus, providing consultation and training on how to face these issues can enhance their internal capabilities and prevent them from suffering through further problems. In fact, given that infertile women are often upset and stressed by social communications, this stress and low self-esteem tend to become another factor intensifying their infertility and its subsequent complications. Research reveals that women face the stress caused by infertility in different ways than men. For instance, women are more likely to seek social support whereas men tend to solve the problem. These different tendencies might even cause conflicts. According to psychologists, constant mental engagement with childbearing could even affect sexual satisfaction. Hence, treatment based on acceptance and awareness can improve sexual self-esteem and reduce infertility stress since it fills the gap caused by the lack of attention and makes women more self-aware in the face of their problems by giving them the required awareness and having them accept their capabilities.

Recommendations

- Physicians and staff at infertility centers are recommended to improve the physical and mental health of patients referring to these centers by teaching them mindfulness techniques.
- This therapeutic method is recommended to be used in pre-marital consultation centers as well to provide the couples with the necessary awareness and prepare them in the case of such problems arising in their married lives.

- Given that treatment based on acceptance and awareness left a significant impact on sexual self-esteem and infertility stress in infertile women, further experimental research is recommended to be conducted in this regard in various regions of the country to make sure of its effectiveness.
- Other research designs such as the Solomon four-group design and time series studies can also yield better and more reliable results, which are recommended for further search.

References:

[1]. Imani, Mehdi, (2013), the effectiveness of acceptance-based behavioral therapy and integrated behavioral couple therapy in reducing marital turmoil and generalized anxiety disorder symptoms in women in Mahshahr, Ph.D. dissertation. Ahvaz: Shahid Chamran University of Ahvaz.

[2]. Aims, I, (1984), Achievement Attributions and self- Instructions under competitive and Indiviclualist Struuctures. Journal of Educational Psychology, No. 76, pp. 142-159.

[3]. Ames, C., & Archer, J, (1988), Achievement goals in the classroom. Students learning strategies and motivation process. Journal of Educational Psychology.80،260-270.

[4]. Andrew, S, (1988), Self- efficacy as a predictor of academic performance in science. Journal of Advanced Nursing, 27, (3),596-603.

[5]. Alibakhshi, Z., Zare, H, (2011), Effect of teaching self-regulated learning and study skills on the academic achievement of university students. Journal of Applied Psychology; 4 (3): 69-80.

[6]. Bruce, W. T., Dennis, A. A., & Dennis, R. S, (2007), Learning and Motivation strategies: Your Guide to success. Pearson Education.

[7]. Bolton, R, (2005), public skills psychology translation. Hamidreza sohrabi. Roshd publications third edition.

[8]. Butler, D. Ly., & Winner, P. H, (1995), Feedback and self- regulated learning: A theoretical synthesis. Review of Educational Research. No. 6, pp. 245- 281.

[9]. Bouffard, T., Vezeau, C., & Bordeleau, L, (1998), A developmental study of relation between combined learning and performance goals and students self-regulated learning. British Journal of Educational Psychology, 68, 309-319.

[10]. Barzegari Dehej, Abolfazl (2015). The Effectiveness of Acceptance and Commitment Therapy (ACT) on Adjusting Emotions and Mood swings in Adolescents, master's thesis, Tehran: Allameh Tabatabaei University.

[11]. Chang, C, Y, (1991), A Study of the relation ship between college students' academic erformance and their cognitivetyle, metacognition, motivational and self regulated factors. Educational Psychology, No, 24, pp. 145-161.

[12]. Chen, C. S, (2002), Self- regulated learning strategies and achivement ian introduction to information systems course. Information Technology, Learning, and Performance Journal. 20 (1), PP 11-24.

[13]. Cerner, jant, (2005), learning disorders. Translation: Dr.Esmat Danesh. Shahid beheshti university publications.

[14]. Dabbaghi, Parviz; Asgharnejad Farid, Ali; Atef Vahid, Kazem; and Boalhari, Jafar. (2007). The effectiveness of group cognitive therapy based on observational thinking (mindfulness) and spiritual schema activation in relapse prevention -366 (4) opioid use. Iranian Journal of Psychiatry and Clinical Psychology, 13.

[15]. Eftari, Shokouh. Mohsenzadeh, Farshad, and Zahrakar, Kianoosh. (2019). How women cope with infertility stress: A phenomenological study.

[16]. Entwistle, N, (1998), Motivational factors in student approaches to learning. In R. Schmeck (Eds). Learning strategies and learning styles: Perspectives on individual differences,21-51. New York: Plenum Press.
[17]. Fattahi, SH, (2012), The influence of teaching management and time-scheduling (self-regulatory) skills on achievement motivation and academic performance of secondary school students in basic science courses.
[18]. Peyvastegaz, Mehrangiz, Heydari and Abdi, Ahmad, (2008). Comparison of the relationship between emotional cognitive regulation strategies and depressive symptoms in teenagers referring to medical centers (psychiatry) and other teenagers, -563, (7) Applied Psychology, 2 & 3.
[19]. Rezaei, Seyedeh Mohadeseh, Safara, Maryam, Mousavinejad, Seyed Mahmoud, (2021). The role of infertility stress and the feeling of failure in predicting infertile women's marital relationship quality. Journal of Qom University of Medical Sciences. 2021; 15 (2): 149-140
[20]. Kaldavi, Ali; Borjali, Ahmad; Filsafinejad, Mohammad Reza and Sohrabi, Faramarz, (2011). The effectiveness of a mindfulness-based relapse prevention model in preventing relapse and motivation in opioid addicts.
[21]. Sharifi, Nader, (2020). Study of infertility's correlation with self-esteem and depression in women referring to infertility clinics, the third international conference on new findings in midwifery, gynecology, obstetrics, and infertility.