



Comparison of the Mindfulness and Imagery Rescripting and Reprocessing Therapy Effectiveness on Self-Efficacy among Mothers of Students with Autism Spectrum Disorder

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ABSTRACT: This study aims to compare the effect of mindfulness-based cognitive therapy and Imagery Rescripting and Reprocessing Therapy on self-caring mothers of children diagnosed with an autism spectrum disorder in 2019. The statistical population of the study is 105 mothers of children with an autism spectrum disorder in two schools of Ahvaz, of which 45 mothers are randomly selected and 15 people are divided into three groups. The type of research is applied based on purpose whereas the data collection method is based on field and quasi-experimental research, along with pre-test-post-test with the control group. Research tools consist of Long-Form Neff Self-Compassion Questionnaire (2003), Measuring Hall and Edwards (1986), Spirituality Training, et al. (2010), Mindfulness-Based Cognitive Therapy Protocol (2003), and Imagery Rescripting and Reprocessing Protocol with Processing Cognitive by Smucker (1995). The results obtained from analysis of covariance by SPSS software version 24 show that mindfulness-based method with the simultaneous effect of group type and test status of ($p = 0.00$), $F = 58.31$, the effect size of 0.510, and also Imagery Rescripting and Reprocessing with cognitive processing with the simultaneous effect of type Experimental group and condition. ($p = 0.00$) and ($F = 40.36$) have an effect on self-compassion of mothers of children with autism spectrum disorder than the effect size is 0.394 and more than the error level of 0.05. Therefore, it indicates that there is no difference between the two treatments on self-compassion of mothers of children diagnosed with an autism spectrum disorder.

Keywords: Mindfulness, Imagery Rescripting and Reprocessing, Self-Efficacy, Autism Spectrum Disorder

Introduction

Autism Spectrum Disorder (ASD) is a range of complex developmental disorders characterized by delays or problems with cognitive, social, emotional, linguistic, sensory, and motor abilities ([Greenspan & Wieder, 2006](#)). Defects in these children become apparent in the early years of development and affect a person's life throughout his or her lifetime. These cognitive and behavioral disabilities affect not only the sufferer, but also caregivers, families, teachers, and the community ([Dealberto, 2011](#)). The dramatic increase in the prevalence of this disorder in the last three decades has led to many studies which link cognition Biological and genetic symptoms to the etiology and incidence of ASD. However, research is relatively limited on the relationship between the symptoms of the disease and family functioning. In other words, many studies have been devoted to the disabilities of these children, but less attention has been paid to the tendency environments ([Grunert, Weis, Smucker, & Christianson, 2007](#)). Autism disorder has multifaceted and pervasive effects on parents of prenominated children ([Greenspan &](#)

[Wieder, 2006](#)). Wellkmar and Pauls says that about 50% of children with ASD have limited ability to live independently due to cognitive or adaptive limitations, and this has led parents to spend a lot of time meeting their child's needs throughout their lives ([Volkmar, Lord, Bailey, Schultz, & Klin, 2004](#)). Seltzer's longitudinal study on the parents of these children with developmental disabilities has shown that more than 58% of parents aged 58 and more still care for their child ([Seltzer, Floyd, Song, Greenberg, & Hong, 2011](#)). The thought of enduring stress of having children with autism is imposed on parents, and it may change their perceptions of parenting and reduce their optimism about their future as well as their child's future.

Due to the difficulties mentioned in the development of autistic children, their parents face many challenges and suffer more problems than the families of children who grow up normally ([Dabrowska & Pisula, 2010](#); [Hayes & Watson, 2013](#); [Totsika, Hastings, Emerson, Berridge, & Lancaster, 2011](#)) Many studies have been conducted on stress factors in the lives of parents of children with autism spectrum disorders, which indicate that the stress of parents of these children is higher than the parents of normal children ([Dervishalaj, 2013](#)). The available evidence supports the need to focus on family adaptation, as the results of actions taken for people with autism spectrum disorders are influenced by the family system ([Baker, 2011](#)). The necessity to increase self-care skills to address the special challenges of mothers with these children seems logical.

One way to take care of yourself is self-compassion. Self-compassion is caring and compassion for oneself in difficult times ([Neff, 2011](#)). Self-compassion can be seen as a positive attitude towards oneself when things go wrong ([Smith, 2011](#)). Compassion itself is considered as a protective trait and factor against problems kindness when facing self-judgment, feelings of human connectedness in isolation, and awareness when facing increasing imitation ([Germer & Neff, 2013](#)). Self-compassion means that one accepts one's failures, shortcomings, and flaws ([Sbarra, Smith, & Mehl, 2012](#)). Also, this structure does not mean ignoring the flaws and shortcomings, in which the person acts kindly towards himself instead of criticizing himself, and it is a relatively new structure in psychology that arises as a result of contradictions about variables such as self-compassion ([Yarnell et al., 2015](#); [Zessin, Dickhäuser, & Garbade, 2015](#)). Self-discipline can increase a person's ability to cope with failure. Self-sufficiency means the feeling of care and kindness towards oneself, understanding, attitude without judgment, and judgment towards one's shortcomings and failures and recognizing this ([Abasi, Begian, Ayadi, & Dargahi, 2015](#)). Self-efficacy is a variable that is considered as a unique example of positive emotions as a result of interest in psychological issues and by a combination of three components including self-kindness versus self-judgment, mindfulness versus over-knowledge, and shared humanity. Vs. Isolation ([Yarnell et al., 2015](#)). Self-kindness means having a hopeful and understanding attitude towards oneself instead of a negative attitude ([Krieger, Altenstein, Baettig, Doerig, & Holtforth, 2013](#)).

Mindfulness, in the context of self-care, requires having a balanced view of negative emotions ([Allen & Leary, 2010](#)). Common humanity includes the realization of human beings as imperfect and that we are not alone in our suffering. Instead, our flaws are what make us part of the human race ([Germer & Neff, 2013](#); [Lowry, 2018](#); [Yarnell et al., 2015](#); [Zessin et al., 2015](#)). When we are overwhelmed by suffering,

we feel less isolated by recalling shared human experiences ([Germer & Neff, 2013](#)). Compassion for oneself creates emotional security that one can see oneself clearly without fear of oneself, and he/she has the opportunity to accurately understand and correct inconsistent thought, emotional and behavioral patterns ([Drikvandi, 2014](#)).

Today, different therapies are used to provide psychological services, including psychological therapy based on mind-awareness (MBSR), Imagery Rescripting and Reprocessing Therapy (IRRT), mind-awareness ([Kabat-Zinn, 2003](#)), the basic premise of which emphasize the fact that negative thoughts should not be seen as part of themselves or a reflection of reality, but as simply mental events that pass ([Godfrin & Van Heeringen, 2010](#)). Therefore, in this treatment method, it is tried to increase their ability to control stressful life events by accepting people's thoughts, perceptions, and feelings about stressful events ([Esser, 2012](#)). In other words, the main feature of this mind-awareness approach is attention and acceptance, which causes the patient to pay attention to clues, responses, and self-control in the present and respond flexibly to the symptoms of his disease ([Yang, Zhao, Chen, Zu, & Zhao, 2018](#)). Although the method is first developed to treat chronic pain, in recent years it has been used in various fields, including control and reduction of psychological symptoms.

Another exercise that affects performance is mental imagery. Mental imagery is the secret repetition of action without performing physical movements. Recent studies have shown that the same neural mechanisms involved in learning or physical activity are activated in mental training, helping sufferers to overcome negative thoughts and disturbing memories through cognitive reprocessing ([Dibbets & Arntz, 2016](#)). This method is accomplished in three stages: 1- mental imagery order 2- dominance of mental imagery 3- self-relaxation with reprocessing ([Dibbets & Arntz, 2016](#)). Although this method was first developed by ([Carey et al., 1995](#)) for rape victims or people with PTSD, it has been developed by many researchers in various fields such as controlling negative thoughts, suicide, and nightmares ([Crane, Shah, Barnhofer, & Holmes, 2012](#)). That's why the American Psychological Association considers it one of the best treatments for patients that can reduce stress, anxiety, depression, dysfunctional attitudes, negative thoughts, and pain control, and provide a sense of control over the disease for this group of patients.

In this regard, [Neece, Chan, Klein, Roberts, and Fenning \(2019\)](#) conclude that mindfulness-based intervention affects emotional performance and the growth of self-awareness and spirituality of parents with autism spectrum disorder children. [Hwang et al. \(2019\)](#) shows that mindfulness-based intervention is effective on emotional communication processing ability and improving interpersonal performance and cognitive regulation. [Green, Ferrante, Boaz, Kutash, and Wheeldon-Reece \(2021\)](#) conclude that creating mental images for parents with developmental disabilities children can inhibit emotional behavioral responses, as well as promote peace of mind and enhance decision-making ability. [Rayan and Ahmad \(2017\)](#) have found that mindfulness-based intervention is effective on psychological dimensions, improving anxiety, and processing positive parental emotions in parents with autism spectrum disorder children. [Burke, Chan, and Neece \(2017\)](#) propose that mindfulness-based education for parents with mentally retarded children can improve interactive communication patterns and improve

their spirituality. [Bazzano, Martin, Hicks, Faughnan, and Murphy \(2017\)](#) show that mindfulness-based intervention affects self-compassion, self-efficacy, and emotional processing levels of parents and caregivers of children with an autism spectrum disorder. [Murfi \(2015\)](#) conclude that creating positive mental images can have a direct effect on self-compassion or self-kindness as well as the level of emotional processing in addition to a direct effect on mood. One of the problems of parents is the feeling of shame and guilt, and the discrepancy between the real self from their point of view and the ideal self from the point of view of others which leads to sad emotions such as shame and the discrepancy between the real self and the self. Restlessness is accompanied by the excitement of sin. Today, due to the presence of cognitive, emotional, and behavioral symptoms in parents of children with autism spectrum disorder, specialists not only benefit from medical treatments but also benefit from psychological therapies that play a crucial role in controlling and reducing psychological symptoms.

The goal of this study is to compare cognitive therapy based on mindfulness and Imagery Rescripting and Reprocessing with cognitive processing on self-caring mothers of children diagnosed with an autism spectrum disorder in Ahvaz in 2019. According to studies, both therapies have been used for many problems and psychological disorders. Since the attitude of the majority of people prone to stress and psychological trauma to psychological treatment is not positive due to the slow process of treatment, careful consideration of each method and choose the appropriate method according to the initial evaluation of clients, which reduces confusion and increases clients' confidence in professional competence. He becomes a therapist. Therefore, according to the above introduction, the research question arises as to whether there is a difference between the effectiveness of mindfulness-based cognitive therapy and Imagery Rescripting and Reprocessing with cognitive processing on self-efficacy of mothers of children diagnosed with autism spectrum disorder?

Material and Methods

The statistical population of the present study is the mothers of children diagnosed with an autism spectrum disorder in two schools under the supervision of education in Ahvaz with 105 students in 2019. 45 mothers are selected by purposive sampling and divided into three groups of 15: cognitive therapy based on mindfulness, Imagery Rescripting, and Reprocessing with cognitive processing and control. This research is applied research according to its purpose and in terms of cross-sectional data collection method and quasi-experimental research, the method is a pre-test-post-test with a control group along with a one-month follow-up stage. After collecting the supplementary data of the instruments, the analysis of the results of the extracted raw data, the pre-test and post-test collection tools of the two groups is performed with SPSS24 software.

Self-Compassion Questionnaire: This questionnaire is developed by Neff in 2003 with 26 items. It has 6 two-sided factors which are: kindness, Judge, sense of human commonalities, isolation, mindfulness, and increased replication. This questionnaire is graded on a Likert scale from 1 to 5. The reliability coefficient of the self-compassion scale is 0.93 (21). In the study of Neff et al. (22), Cronbach's alpha

coefficient of this scale is reported in Thailand and Taiwan 0.86 and the United States 0.95 (22). Overall reliability is 0.92. Also, through Cronbach's alpha method, each of the subscales had good internal consistency (from 0.75 to 0.81). In addition, the reliability of the retest over a two-week interval of the 0.93 scales has been reported. This has a relatively high degree of convergent and differential validity. Cronbach's alpha in the Iranian version of "[\(Khosravi, Sadeghi, & Yabandeh, 2013\)](#)" reported kindness with 0.81, self-judgment 0.79, human commonalities 0.84, isolation 0.85, Behshiari 0.80, extreme imitation 0.83, and the whole scale 0.76. In the research of confirmatory factor analysis confirms the correctness of the extracted factors. The convergent and divergent validity of the self-compassion scale is calculated by performing the self-compassion scale and Beck Depression and Anxiety Inventory, and the results are significant. Also, the internal consistency of the self-compassion scale is calculated according to Cronbach's alpha coefficient; it is confirmed with a correlation coefficient of 0.70 and a significant correlation coefficient (0.89) between the scores of two test rounds with an interval of 10 days, which indicates the reliability of high-scale retest ([\(Momeni, Brileya, Fields, & Shou, 2013\)](#)). Cronbach's alpha coefficient is obtained in the present study in the pre-test condition of $F = 0.95$ and post-test $F = 0.98$ which is more than 0.7 and shows the establishment of reliability.

mindfulness-based stress reduction package (MBSR)

The subject of mindfulness-based stress reduction therapy training is prepared by combining general mindfulness-based cognitive therapy training ([\(Kabat-Zinn, 2003\)](#)). The relevant protocol is developed in 8 90-minute group sessions at the school location with two sessions per week. The mornings are set and the content of each session is as follows:

Table 1. Content of Kabat-Zinn (2003 mindfulness-based stress reduction package Therapy Protocol Sessions (2003)

Session	Objective	Content
1	Awareness of the concept of mindfulness	Familiarity of members with each other, explaining the nature of the treatment session, the concept of mindfulness, and its role in reducing stress
2	Awareness of mindfulness techniques and their relationship to stress	Relaxation training by creating tension and releasing it in the muscles, becoming aware of the wandering mind and practicing body attention, paying attention to breathing, and giving homework
3	Learning to calm the mind and its relationship with negative and positive thoughts	Study homework, relaxation training by re-reading muscle groups, sitting meditation, and doing exercises that maintain attention in the present and control negative spontaneous thoughts. Assigning homework
4	Teaching observational thinking and being in the present	Assessing homework, practicing breathing control training, gaining awareness of thoughts and feelings and watching thoughts without value judgment and controlling negative spontaneous thoughts, Assigning homework
5	Generalizing relaxation and meditation	Examining homework, generalizing relaxation and meditation in different situations, teaching attendance and having supervisory thoughts with positive thoughts, giving homework
6	Teaching the connection between thinking and mood and negative emotions	Assessing homework, teaching the relationship between thought and mood and negative emotions, sitting meditation, focusing on emotional feelings, mood swings, and thoughts based on the type of relationship
7	Teaching the art of enduring anxiety and controlling negative spontaneous thoughts	Assessing homework, training in stress tolerance to control negative spontaneous thoughts, and creating positive thoughts
8	Implementing stress reduction techniques to control negative thoughts in real-life environments	Studying homework, reviewing stress reduction techniques and using them in the present, and extending them to the whole real-life process

Imagery Rescripting and Reprocessing Therapy (IRRT)

This treatment plan is developed by [Smucker, Dancu, Foa, and Niederee \(1995\)](#) in 5 to 7, 90-minute sessions with three stages: command-mental imagery, the dominance of mental imagery, mental self-relaxation with cognitive reprocessing, and the structure of the therapy sessions is reported below.

Table 2. Content of sessions of Imagery Rescripting and Reprocessing protocol with cognitive processing

Session	Objective	Content
1	The concept of IRRT and its relation to thoughts	Familiarity with each other, general presentation of IRRT and its role with psychological symptoms such as negative spontaneous thoughts, insomnia, unpleasant feelings
2	Identify annoying thoughts and images and their relationship to mood and behavior	Homework helps to identify negative thoughts and visualize disturbing images and how it overshadows mood, thinking, behavior and insomnia
3	Practice muscle relaxation and visualize disturbing thoughts and images	Examine homework, visualize annoying thoughts and images in full detail and with closed eyes in conditions of muscle relaxation and its relationship with mood and insomnia, giving homework
4	Guide grammatical mental illustration training	Homework review, guided and instructed mental imagery training by the therapist to control negative thoughts and annoying images and create positive images, give homework
5	Learn the technique of mental rotation and mental review	Examine homework, teach cognitive review techniques and mind rotation techniques along with cognitive reprocessing, to eliminate negative spontaneous thoughts and create positive thoughts and moods
6	Practice cognitive reconstruction of negative thoughts and liberating images	Use cognitive review, the technique of mental rotation with reprocessing to control recurrent mental sparks and change the meanings of traumatic events, review of homework
7	Apply trained techniques	Examine homework, control recurrent mental sparks, flashbacks, continuous use of mental rotation technique with changes in the meanings of annoying thoughts and images to find positive thoughts, feelings, and moods

Results

Demographic information of the samples about the age of the participants: 26.6% of the people are under 25 years old and 22.2% are between 25 and 35 years old. Also, the age of 26.6% of people is between 35 and 45 years old and finally, the age of 24.6% of people is more than 45 years old. Also, in terms of education, 17.8% of people are undergraduates and 44.4% are graduates. Also, 37.8% of the graduates have diplomas and bachelor's degrees.

In the study of the effect of Imagery Rescripting and reprocessing therapy on self-compassion based on the results of the table below on the effect of mindfulness-based stress reduction therapy on self-compassion as seen in the table above, the separate effect of the type of statistical groups (control and testing) Self-compassion is significant on the recorded scores. ($p = 0.00$ and $F = 31.728$) and the effect size is 0.362, which is at a moderate level according to Cohen's table. Statistically, the mean scores of self-compassion are significantly different in control and cognitive therapy groups which are not the same.

The separate effect of the test time variable ($p = 0.00$ and $F = 41.488$) and the effect size of 0.428, which is at the average level according to Cohen's table, is inferred that the mean scores of self-compassion in the two test times (pre-test and post-test) are significantly different. it is not the same. The above table shows the simultaneous effect of group type and test status (pre-test and post-test) on self-compassion scores ($p = 0.00$ $F = 58.318$) and the effect size of 0.510 is inferred that the simultaneous effect of control and experimental groups with the status of the experiment have a significant effect on self-compassion.

Table 3. Between subjects' effects (model test) (imagery receipting and reprocessing)

Source of changes	SS	DF	MS	F	p	Eta	Power
Corrected model	35320.333	3	11773.444	43.965	0.00	0.702	1.000
Constant	342619.267	1	342619.267	1279.419	0.00	0.958	1.000
Statistical group (control and testing)	8496.600	1	8496.600	31.728	0.00	0.362	1.000
Status (pre-test and post-test)	11206.667	1	11206.667	41.848	0.00	0.428	1.000
effect of status and statistical group	15617.067	1	15617.067	58.318	0.00	0.510	1.000
Error	14996.400	56	267.793				
Total	392936.000	60					
Corrected Total	50316.733	59					

Also, the effect of imagery receipting and reprocessing on self-compassion of individuals is seen above concerning the results of the table below on the effect of imagery receipting and reprocessing on individual self-compassion; the separate effect of independent variables and the simultaneous effect of groups' statistical and time of scoring had a significant effect on self-compassion ($p < 0.05$).

The mean scores of self-compassion have increased after the implementation of receipting and reprocessing and this increase is found to be statistically significant. Therefore, it is inferred that the effectiveness (average size 0.394 level) of receipting and reprocessing in self-compassion of mothers of children diagnosed with autism spectrum disorder is confirmed with a 95% probability.

Table 4. Between subjects' effects (model test) (mindfulness-based stress reduction therapy)

Source of changes	SS	DF	MS	F	p	Eta	Power
Corrected model	26881.600	3	8960.533	29.687	0.00	0.614	1.000
Constant	342921.600	1	342921.600	1136.120	0.00	0.953	1.000
Statistical group (control and testing)	8544.267	1	8544.267	28.308	0.00	0.336	0.999
Status (pre-test and post-test)	7348.267	1	7348.267	24.345	0.00	0.303	0.999
effect of status and statistical group	10989.067	1	10989.067	36.407	0.00	0.394	1.000
Error	16902.800	56	301.836				
Total	386706.000	60					
Corrected Total	43784.400	59					

Evaluation of the effectiveness of mindfulness-based stress reduction therapy and imagery receipting and reprocessing on self-compassion of mothers of children diagnosed with autism spectrum disorder

according to the table below, in comparison of the two methods of cognitive therapy and imaging a significant level of 0.987 and an error level of 0.05 has been obtained. Therefore, it is inferred that there is no significant difference between the effectiveness of mindfulness-based stress reduction therapy and imagery receipting and reprocessing on self-compassion in mothers of children diagnosed with an autism spectrum disorder. As can be seen, with the mean scores of self-compassion in all three groups in the pre-test situation, the subjects are at the same level with a little neglect. However, after training, it is observed that the mean scores of the self-compassion variable increase in the post-test stage, and this increase indicates the effectiveness of the methods in the self-compassion rate. In the post-test stage, the increase in cognitive therapy is greater than the imaging method, but this difference is not statistically significant.

Table 5. Two-way comparison of therapies in the self-efficacy variable

Variables	Group (I)	Group (J)	difference in averages (I-J)	Significance level	95% confidence interval for mean differences	
					Low limit	Up limit
self-compassion	Control	Cognitive therapy	-23.800	0.000	-32.157	-15.443
		Illustration	-23.867	0.000	-32.223	-15.510
	Cognitive therapy	Control	23.800	0.000	15.443	32.157
		Illustration	-0.067	0.987	-8.423	8.290
	Illustration	Control	-23.867	0.000	15.510	32.223
		Cognitive therapy	0.067	0.987	-8.290	8.423

Discussion

mindfulness-based stress reduction therapy had a significant effect on self-compassion in mothers of children diagnosed with an autism spectrum disorder.

As observed in the findings, the mean scores of self-compassion after the implementation of cognitive therapy based on mindfulness in the group of mother's increase, and this increase is found to be statistically significant. The results of this hypothesis conform to the earlier studies ([Frostadottir & Dorjee, 2019](#); [Ghasemi, Hassani, Goodarzi, Afrand, & Manafi, 2019](#); [Horan & Taylor, 2018](#); [Pasdar, Hasani, & NOURI, 2017](#); [Pintado, 2019](#); [Proeve, Anton, & Kenny, 2018](#); [Wilson, Weiss, & Shook, 2020](#))

In explaining this hypothesis, it can be said that mindfulness is one of the basic components of self-efficacy that requires increasing awareness of negative thoughts and emotions, created by achieving balance and equality. When we have a conscious mind, we examine the facts at the moment without any judgment, distance, or repression. Discouragement and despair in the face of life's challenges confuse people and cause them to constantly criticize and evaluate themselves negatively and constantly travel in the past and future and while it is difficult for them to be aware of their negative thoughts and feelings. It means that the person consciously tries to get rid of his irrational answers and to cleanse the negative self that he has created with the real self, he can recognize that his thoughts and feelings are just the

same thoughts and feelings. The three components of self-sufficiency, although overlapping, are conceptually distinct. Acceptance of mindfulness helps to increase one's self-compassion, gives one the insight to know oneself and others, and reduces the impact of negative emotional experiences, leading the mind to accept. It is easier for oneself and others to share problems with others instead of through one's means to reduce self-blame. Therefore, self-care is best understood as a single experience consisting of reciprocal contexts (Lienhart & Caltabiano, 2019). Psychological positives such as happiness, optimism, and life satisfaction are related. Research shows that self-efficacy is a strong predictor of motivation, leading to greater confidence and less fear of failure, as well as greater stability and re-adjustment of goals after failure. Compassion itself is also related to health. Behaviors in terms of exercise, good eating, and moderate alcohol consumption (Schoenefeld & Webb, 2013) are associated with self-compassion. Self-compassion also deals with life stressors such as divorce (Sbarra et al., 2012), AIDS status (Kemppainen et al., 2013), negative social evaluation (Breines, Toole, Tu, & Chen, 2014), trauma (Vetteese, Dyer, Li, & Wekerle, 2011) and exposure to invasion (Dahm, 2013) which seems to be an important source of resilience. With kindness and self-care, remember that suffering is part of the shared human experience, that compassionate people have more emotional resources to successfully face life's challenges. For this reason, self-care is likely to play a role in parents' ability to cope with the challenges of raising an autistic child (Neff, 2011).

Imagery rescripting and reprocessing is confirmed by cognitive processing on self-compassion in mothers of children diagnosed with autism spectrum disorder with a 95% probability. The results of this hypothesis are following the research of (Murfi, 2015; Vyshedskiy & Dunn, 2015).

In explaining this hypothesis, it can be said that imagery rescripting and reprocessing therapy is a therapy based on cognitive image therapy that is designed to reduce the symptoms of post-traumatic stress and correct images, beliefs, and plans related to trauma (Landkroon, Mertens, Sevenster, Dibbets, & Engelhard, 2019). Imagery rescripting and reprocessing consist of three stages of imagery: 1. Fanciful imagination - visual recollection and re-experiencing traumatic images with related thoughts, effects, and bodily emotions along with creating an accurate, descriptive, verbal narrative. 2. Masterful Imaginations - Imagine yourself as a worthy and capable adult (today) by rescuing the child from the trauma scene, successfully confronting, and preventing the power of the offender (at that time). 3. Self-Relaxing / Self-Nutrition Images - Imagine yourself as an adult (today) calming, soothing, and nurturing an affected child (at the time). Through this symbolic 3-stage imaginary "psychotherapy" (in the "Inner stage"), trauma material is first activated and experienced through the eyes of the "affected child" and then challenged, corrected through the eyes, and reprocessed (Morina, Lancee, & Arntz, 2017).

Research shows that high levels of self-compassion may have a positive effect on recovery from post-traumatic stress because the painful thoughts and memories that often result from a traumatic experience may be less threatening when self-efficacy is sufficient and be easier to deal with, but studies have shown that self-care is often a preventing factor in causing burnout because people who have as much self-care as they can generally are in touch with their needs and maintain physical and mental well-being. Self-care is also provided to help parents and other caregivers cope with the challenges of caring

for an abnormal child. Research shows that parents of children with autism generally report a more positive sense of well-being when they are self-centered and have fewer negative effects from the various stressors, experienced as a result of their child's condition ([Crane et al., 2012](#)).

There is no difference in evaluating the effectiveness of mindfulness-based stress reduction therapy and Imagery rescripting and reprocessing on self-compassion in mothers of children diagnosed with autism spectrum disorder ([Yarnell et al., 2015](#); [Zessin et al., 2015](#)).

Mindfulness training reduces stress, depression, and anxiety in a wide range of populations, so it may reduce these symptoms in parents of children diagnosed with an autism spectrum disorder. In particular, educating and informing parents of prenominated children reduce parental stress and improve parenting and cohabitation styles. A program based on reducing mindfulness stress is also useful for adults with an autism spectrum disorder. Heritability in autism spectrum disorder is .80 and the symptoms of autism spectrum disorder are related in children and their parents; therefore, a mindfulness-based stress reduction program for parents of children with autism spectrum disorder may help parents cope with the symptoms of autism spectrum disorder. Therefore, the integration of a mindfulness-based stress reduction program for children with autism spectrum disorder and a mother-child empowerment program is beneficial for parents and children ([Ridderinkhof, de Bruin, Blom, Singh, & Bögels, 2019](#)). Imagery rescripting and reprocessing therapy is also a therapy based on cognitive image therapy that is designed to reduce the symptoms of post-traumatic stress and correct trauma-related images, beliefs, and designs ([Landkroon et al., 2019](#)). The intense emotional and physiological distress that often accompanies traumatic memories is replaced by positive emotions and self-relaxation in imagery rescripting and reprocessing therapy; and through resuscitation, grammatical mental imagery, and reprocessing of the trauma memory, successful emotional and cognitive processing of this traumatic event may occur, allowing the individual to respond normally to the traumatic event ([Morina et al., 2017](#)). Therefore, this treatment method also reduces the stress of having a child with problems (physical, emotional, psychological, and social) and increases the acceptance and cooperation of parents. They also increase cognitive flexibility and reduce stressful experiences. And it causes parental stress. Empowered parents are also able to help other parents to participate in meetings with their children in a friendly way, instead of automatically reacting emotionally, and to calm down by considering their opinions and expectations. In trained parents, the power of understanding and rehabilitation increases to help children and families; therefore, having cognitive therapy programs and increasing self-care in mothers can intervene in increasing the correct pattern of interaction between parents and children with emotional and behavioral problems ([Ridderinkhof et al., 2019](#)).

Some of the ethical considerations of research are:

- Before starting work, informed consent will be received from individuals, and emphasis is placed on maintaining security.
- Before starting the work, people will be informed about the subject and method of conducting the study. The private and personal information of the candidates will be protected (the principle of confidentiality will be done).

Results will be interpreted for individuals if desired.

In case of any disorder, the necessary instructions will be provided to follow up.

- Participating in research will not cause any financial burden for individuals.

- This research does not contradict the religious and cultural norms of individuals and society

Practical suggestions

1- According to the findings of this study, self-compassion training can be suggested as an effective method to increase the awareness of mothers with children with autism.

2 - According to the results, it is suggested that experts in this field for therapeutic interventions, in addition to solutions focused on children with autism spectrum disorders, on the mental health of parents, family environment, community resources, and other factors also focus on the context of the child's life.

3- According to the results, group cognitive therapy can be used to increase mindfulness and improve the mental imagery of mothers of children diagnosed with an autism spectrum disorder.

4- With identifying and screening mothers at risk and prioritizing these training for them, it is recommended to hold workshops based on a positive mindfulness program for mothers and their families.

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