KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 04 July 2023
Accepted 13 August 2023
Published online 01 September 2023

Psychology of Woman Journal

Volume 4, Issue 3, pp 77-84

E-ISSN: 3041-8515

The Effectiveness of an Emotion Regulation Training Program on Rumination, Life Satisfaction, and Self-Esteem in Mothers of Children with Intellectual-Developmental Disabilities

Zohreh. Safari Hosseinabadi[1], Sedighe. Rezaei Dehnavi[2*]

[1] M.A., General Psychology, Payame Noor University, Najafabad, Iran
[2] Associate Professor, Department of Psychology, Payame Noor University, Tehran, Iran

*** Corresponding author email address**: srezaeidehnavi@pnu.ac.ir

A r t i c l e I n f o

Article type:
Original Research

How to cite this article:
Safari Hosseinabadi, Z., & Rezaei Dehnavi, S. (2023). The Effectiveness of an Emotion Regulation Training Program on Rumination, Life Satisfaction, and Self-Esteem in Mothers of Children with Intellectual-Developmental Disabilities. *Psychology of Woman Journal*, *4*(3), 77-84. http://dx.doi.org/10.61838/kman.pwj.4.3.10

A B S T R A C T

Objective: The purpose of the present study was to determine the effectiveness of an emotion regulation training program on rumination, life satisfaction, and self-esteem in mothers of children with intellectual-developmental disabilities.

Methods and Materials: The research method was a quasi-experimental (semi-experimental) design with pre-test, post-test, and control and experimental groups. The population consisted of all mothers with children suffering from intellectual-developmental disabilities in the Mehrdasht area of Isfahan, totaling 50 individuals. From among them, 40 were selected through convenience sampling. The instruments used in this research included the Nolen-Hoeksma and Morrow (1991) questionnaire, the Diener et al. (1985) life satisfaction scale, and the Rosenberg (1965) self-esteem questionnaire.

Findings: The results showed that the emotion regulation training program led to improvements in rumination (F = 86.19), life satisfaction (F = 56.39), and self-esteem (F = 115.71) in mothers of children with intellectual-developmental disabilities.

Conclusion: Therefore, incorporating emotion regulation training can effectively enhance the psychological well-being of mothers of children with intellectual-developmental disabilities, contributing to their life satisfaction.

Keywords: *Emotion regulation training, rumination, life satisfaction, self-esteem.*

1. Introduction

Individuals caring for disabled family members face numerous challenges, with mothers primarily bearing the brunt of adverse consequences such as marital problems, social isolation, psychological stress, and other stress-inducing factors (Wei et al., 2012). These children inadvertently impose greater financial and emotional costs on their mothers compared to their healthy peers (Nozarpour et al., 2022; Zhao et al., 2022). They can even affect the marital relationships of couples, as well as social and economic psychological stress. Typically, mothers of these children suffer from physical problems (lack of sleep, musculoskeletal pains, and hypertension), depression, anger,

despair, anxiety, family and social issues (Moreira & Canavarro, 2018).

Research shows that mothers of children with special needs experience more shame, deprivation, stress, and depression compared to mothers of normal children. Due to the unique bond between mothers and their children, mothers are highly sensitive to their children's issues; such that the problems of the children are considered a significant source for the mothers' mental health or lack thereof. Self-esteem among mothers of children with intellectual disabilities is one of the issues; self-esteem is the degree of approval, acceptance, and value that a person feels towards themselves or their self-worth. Self-esteem, born out of social life and its associated values, plays a protective role against psychological pressures and supports against the pressures of negative life events. Some psychologists believe that a defect in self-esteem can be associated with psychological abnormalities. Therefore, focusing on positive points, strengthening self-confidence, and self-belief are among the most important tasks that educational scholars and researchers have paid special attention to (Darbani & Parsakia, 2022; Parsakia, 2023; Parsakia & Darbani, 2022). Additionally, research by Goyal et al. showed that individuals with low self-esteem are more likely to suffer from mental and physical illnesses (Goyal et al., 2019).

Emotional regulation skills are another issue that mothers of children with intellectual-developmental disabilities are dealing with. In fact, the presence of a disabled child in the family threatens the adaptation and mental health of mothers, causing problems in mothers' emotional well-being. Emotional regulation refers to the ability to understand and comprehend emotions and to modulate the experience and expression of emotions and is associated with psychological adaptability and improved quality of interpersonal relationships (Karami et al., 2019; Khedmati, 2020).

Rumination is a notable variable among mothers of children with special needs. Rumination is defined as a passive state in which individuals repeatedly and passively focus on the symptoms of distress, their causes, and possible outcomes (Rezvan et al., 2006). Lewis, Yoon, and Jorm also consider rumination as the interpretation and analysis of stressful life events and introduce it as a reaction to stress. According to the definitions mentioned, ruminative thoughts are those that: 1) are related to events or the nature of depressed mood, 2) are not goal-oriented and do not guide individuals to a specific plan or action, and 3) when the individual is engaged in rumination, they are socially dissonant and uninvolved with the environment (Rajabi et al., 2012). Rumination is one of the prominent problems among the population of mothers with children with special needs, especially those with children with mental disabilities, requiring increasing attention (Moreira & Canavarro, 2018).

Another significant risk looming over mothers of children with intellectual disabilities is their life satisfaction. Due to being exposed to more stress and anxiety, the quality of life of these mothers decreases, and consequently, their life satisfaction diminishes. Life satisfaction is defined as an individual's judgment of their satisfaction regarding their current state of affairs based on a comparison with the standards that the individual has set for themselves. Mental well-being satisfaction refers to an individual's feelings and thoughts about life. Mental well-being is a broad concept divided into two parts: 1) emotional well-being, referring to the presence of pleasant and positive emotions (e.g., feeling happy) and the absence of unpleasant emotions (e.g., mood or depression), and 2) cognitive well-being, referring to general cognitive evaluations of life (e.g., life satisfaction) as well as specific life domains (e.g., job satisfaction or marital satisfaction). Therefore, life satisfaction is an important component of positive well-being (Moreira & Canavarro, 2018). Varzdar, Ranjbaripour, and Rezabakhsh, (2019), in a study, showed that parents of disabled or exceptional children have lower life satisfaction compared to parents of normal children (Varzdar et al., 2019).

Considering the negative consequences of high rumination, low life satisfaction, and self-esteem among mothers of children with intellectual-developmental disabilities, the implementation of counseling and psychological interventions to increase life satisfaction and self-esteem and reduce rumination seems necessary. Therefore, one of the treatments that can affect the mental health of mothers of children with intellectual-developmental disabilities and has not yet been focused on by researchers is emotional regulation training. Emotional regulation training means reducing and controlling negative emotions and positively using emotions (Abolghasemi & Baigi, 2011). Numerous studies have shown the positive effects of emotional regulation training on improving various psychological variables in the sample of parents of children with special needs. The findings of these studies indicate the effectiveness of emotional regulation training in improving parent-child interaction in mothers of children with learning disabilities, reducing negative affect and increasing resilience in mothers of children with disabilities,

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8515

improving the mental health of mothers of children with attention deficit, increasing psychological well-being of mothers of mentally disabled students, parent-child interaction in mothers of children with attention deficits, and reducing rumination. Emotional regulation means individuals' efforts to influence their experience and how it is expressed and the intensity of emotional behavioral and experiential processes, and is also regulated either automatically or controlled, through the use of emotional regulation strategies and affects individuals' mental health (Rezvan et al., 2006). Emotional regulation training also means reducing and controlling negative emotions and positively using emotions. Gross has proposed a process model of emotional regulation (Azarian et al., 2020; Behrouian et al., 2021). According to Gross's model, emotional regulation includes all conscious and unconscious strategies used to increase, maintain, and reduce the emotional, behavioral, and cognitive components of an emotional response. Emotional responses provide important information about an individual's experience in relation to others. With this information, humans learn how to behave in the face of emotions, how to verbally express emotional experiences, what strategies to use in response to emotions, and how to behave with others in the context of specific emotions (Denny, 2020). Numerous studies have shown the positive effects of emotional regulation training on improving various psychological variables in the sample of parents of children with special needs (Moreira & Canavarro, 2018) Based on this, the present study seeks to answer whether the emotional regulation training program is effective on rumination, life satisfaction, and self-esteem of mothers of children with intellectual-developmental disabilities.

2. Methods and Materials

2.1. Study Design and Participants

The present study is a non-descriptive, quasi-experimental research with pre-test, post-test, and control and experimental groups. Moreover, this research is applied in terms of its objective. The statistical population includes all mothers with children who have intellectual-developmental disabilities in the Mehrdasht area of Isfahan, totaling 50 individuals. The sample in this study consists of 40 mothers with children who have intellectual-developmental disabilities, selected through convenience sampling and randomly assigned to two groups, experimental and control, in equal numbers. Inclusion criteria for the study were subjects aged between 25 to 50 years; possessing the minimum literacy required for writing and completing questionnaires; having a child enrolled in a school for exceptional children; and exclusion criteria included having any known psychiatric disorders (based on a psychologist's or counselor's opinion), concurrent participation in educational or psychological courses, and absence from more than two sessions of the therapy course.

2.2. Measures

2.2.1. Rumination

Rumination Questionnaire was developed by Nolen-Hoeksema and Morrow (1991) and translated by Bagheri Nejad et al. (2010). It assesses negative posterior reactions and consists of two subscales: rumination responses and distraction responses, each containing 11 statements. The questionnaire includes 22 statements scored on a Likert scale from 1 (never) to 4 (most of the time). Based on empirical evidence, Laminate (2004) reported the questionnaire's reliability with a Cronbach's alpha method of .92 and its validity with a correlation method of .67. Additionally, in the study by Bagheri Nejad et al. (2010), the reliability coefficient of the questionnaire using Cronbach's alpha method was .90 for its dimensions .92 and .89, respectively. The questionnaire's validity was reported at .65 at the .001 level through correlation with the metacognitive beliefs questionnaire, indicating high validity (Karami et al., 2019).

2.2.2. Life Satisfaction

The Life Satisfaction Scale was created by Diener et al. (1985). It contains five items, each with seven Likert-scale options ranging from strongly disagree (1) to strongly agree (7), scored from 1 to 7. Thus, the lowest score that can be achieved on this test is 5, and the highest is 35. A higher score indicates greater life satisfaction. The Diener questionnaire was translated into Persian by Bayani, Koocheki, and Goodarzi (2007). Diener et al. (1985), in their study, reported a Cronbach's alpha coefficient of .87. Chima, Oishi, Zuccotti, and Redhakrishnan (2002), in a cross-cultural study for German, Japanese, Mexican, and Chinese nationalities, reported the reliability of this index through internal consistency as .90, .82, .79, .76, and .61, respectively. Bayani, Koocheki, and Goodarzi (2007) reported the reliability of this scale through Cronbach's alpha coefficient and retest as .83 and .69, respectively. Diener et al. (1985) reported a retest correlation coefficient of .82 for

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8515

the scores of this scale in a population of 176 students. Yousefi, Ahmadi, and Tadibi (2012) used factor analysis to validate this questionnaire, and the results indicated the presence of a general factor in the scale accounting for 54% of the variance. Rajabi, Abolghasemi, and Abbasi (2012) in a study, obtained a correlation coefficient between the Life Satisfaction Questionnaire and the Beck Depression Inventory, the Oxford Happiness Questionnaire, respectively, as -.60, .62, and .79 (Varzdar et al., 2019).

2.2.3. *Self-Esteem*

The Rosenberg Self-Esteem Questionnaire (1965), measures an individual's overall sense of self-worth and self-acceptance. It consists of 10 general statements, with 5 phrased negatively and 5 positively, each rated on a four-point scale from strongly agree to strongly disagree. Scores range from 0 to 3, with the highest possible score being 30. Scores between 15-25 indicate average self-esteem, above 25 indicate high self-esteem, and below 15 indicate low self-esteem. In Rosenberg's study (1965), the reliability of this questionnaire was reported through retest method ranging from .88-.82 and Cronbach's alpha ranging from .78-.77. Alizadeh (2003) obtained the reliability of this questionnaire through the split-half method, between the Persian and English versions, with the Spearman-Brown formula as .73, statistically significant and without execution issues. Additionally, the reliability of this instrument in the research by Hormozi (2014). In the study by Hormozi (2014), the construct validity of this tool was calculated through item analysis method, and validity was obtained in the range of .73–.89, indicating desirable validity. In the study by Foadi (2014), the validity of this questionnaire was obtained through the correlation of each question with the total score ranging from .47 to .76, significant at $p < .01$ level (Bahrami & Akbari Borang, 2023).

2.3. *Intervention*

2.3.1. *Emotion Regulation Training*

Conducted over 8 sessions for the experimental group. In the final session, a post-test was also administered to the experimental group. After data collection in the follow-up phase, training sessions were conducted free of charge by the researcher for the control group participants.

Table 1

Summary of Emotion Regulation Training Sessions

Sessions	Session Summary
Session 1	Introduction of group members to each other, initiation of the group leader (counselor)-member relationship, statement of the main and secondary goals of the group, discussion on personal and collective goals, explanation of the intervention's logic and steps, and statement of participation framework and rules.
Session 2	Situation selection, Goal: Emotional training; Agenda: Recognizing emotions and their triggering situations through teaching about the functions of different emotions, information on various emotional dimensions, and their short-term and long-term effects.
Session 3	Situation selection, Goal: Assessing members' emotional vulnerability and skills; Agenda: Discussion on the role of emotions in human adaptation processes, their benefits, the role of emotions in establishing communication with others and influencing them, and organizing and motivating human behavior, with examples of their real-life experiences being discussed among members.
Session 4	Situation modification, Goal: Inducing change in emotion-triggering situations; Agenda: a) Preventing social isolation and avoidance b) Problem-solving strategy training c) Teaching interpersonal skills (conversation, assertiveness, and conflict resolution).
Session 5	Attentional deployment, Goal: Changing focus; Agenda: 1. Stopping rumination and worry 2. Attention training.
Session 6	Cognitive change, Goal: Altering cognitive appraisals; Agenda: 1) Identifying faulty appraisals and their effects on emotional states 2) Teaching reappraisal strategy.
Session 7	Response modulation, Goal: Altering behavioral and physiological emotional outcomes; Agenda: 1) Identifying the extent and manner of using the inhibition strategy and examining its emotional outcomes, 2) Exposure, 3) Emotional expression training, 4) Behavioral correction through changing environmental reinforcers, 5) Emotional discharge, relaxation, and counterconditioning training.
Session 8	Evaluation and application, Goal: Reassessment and addressing application barriers; Agenda: 1) Evaluating the achievement of individual and group goals 2) Applying learned skills in natural environments outside the session 3) Identifying and addressing obstacles to performing tasks.

2.4. *Data analysis*

Multivariate Analysis of Covariance (MANCOVA) was used for data analysis.

3. Findings and Results

Descriptive findings include the mean and standard deviation of scores for rumination, life satisfaction, and self-esteem of the subjects, which are presented in the tables

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8515

below. Table 2 shows the mean and standard deviation of scores for rumination, life satisfaction, and self-esteem in the experimental and control groups, separately for the pre-test and post-test stages.

Table 2

Mean and Standard Deviation of Rumination, Life Satisfaction, and Self-Esteem in Experimental and Control Groups, by Pre-test and Post-test Stages

Variables	Group	Pre-test Mean (SD)	Post-test Mean (SD)
Rumination	Experimental	56.6 (8.81)	43.35 (9.92)
	Control	56.75 (9.17)	57.45 (9.53)
Life Satisfaction	Experimental	16.85 (4.65)	21.55 (4.21)
	Control	16.6 (5.11)	16.6 (5.06)
Self-Esteem	Experimental	18.3 (2.59)	23.75 (2.67)
	Control	19.85 (2.87)	20.0 (2.73)

As observed in Table 2, the mean (standard deviation) of the rumination score for the experimental and control groups in the pre-test were respectively 56.6 (8.81) and 56.75 (9.17), and in the post-test were 43.35 (9.92) and 57.45 (9.53). Also, the mean (standard deviation) of the life satisfaction score for the experimental and control groups in the pre-test were respectively 16.85 (4.65) and 16.6 (5.11), and in the post-test were 21.55 (4.21) and 16.6 (5.06). Moreover, the mean (standard deviation) of the self-esteem score for the experimental and control groups in the pre-test were respectively 18.3 (2.59) and 19.85 (2.87), and in the post-test were 23.75 (2.67) and 20.0 (2.73).

Table 3

Results of Multivariate Analysis of Covariance on Post-test Scores of Rumination, Life Satisfaction, and Self-Esteem for Experimental and Control Groups

Test Name	Value	F	Hypothesis df	Error df	p	Effect Size	Statistical Power
Pillai's Trace	0.853	64.01	3	33	< 0.001	0.85	1.00
Wilks' Lambda	0.147	64.01	3	33	< 0.001	0.85	1.00
Hotelling's Trace	5.82	64.01	3	33	< 0.001	0.85	1.00
Roy’s Largest Root	5.82	64.01	3	33	< 0.001	0.85	1.00

In this study, to test hypotheses and determine the significance of differences between the experimental and control scores in dependent variables of rumination, life satisfaction, and self-esteem, Multivariate Analysis of Covariance (MANCOVA) was used. Generally, the presence of several dependent variables necessitates the use of multivariate methods. Before analyzing the data related to the hypotheses, to ensure that the data of this research meet the underlying assumptions of covariance analysis, they were examined. The assumptions of linearity, multicollinearity, homogeneity of variances, and homogeneity of regression slopes were reviewed, which are described in order. In this research, pre-tests of rumination, life satisfaction, and self-esteem were considered as covariates (covariates) and their post-tests as dependent variables. The linearity of the relationship between each dependent variable and its covariate was tested. The relationship between pre-test and post-test for 3 variables in rumination, life satisfaction, and self-esteem were respectively found to be r = .72, r = .81, and r = .49. Based on the obtained data, the assumption of linearity for the variables of rumination, life satisfaction, and self-esteem is established.

When covariates (covariates) have a high correlation with each other at the level of r = .80, we face a condition called multicollinearity, which in fact, correlation coefficients should be less than .80. This important phenomenon must be avoided in multivariate analysis tests. In this study, pre-tests of rumination, life satisfaction, and self-esteem were considered as covariates. The correlation between pre-tests of all 3 variables with each other was in the range of .03 to .35 ($p < .05$) ($p > .05$). Considering the obtained correlations, it can be said that the assumption of the absence of multicollinearity between covariates is met.

Covariance analysis assumes that the variance within each cell of the data table must be equal. Unequal cell size

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8515

does not create a serious problem, but the value of each cell should not be four times smaller than the smallest cell. If this occurs (due to dropouts or any other reason), the variances of the cells must be checked to ensure that no cell has a variance ten times the size of the smallest variance. If this occurs, data should be either log-transformed or converted to Z-scores. In this study, before data analysis for checking the homogeneity of variances, Levine's test was used. Levine's test for all three variables of rumination, life satisfaction, and self-esteem was not significant. Therefore, the assumption of homogeneity of variances is confirmed. While there is an assumption that variables in covariance analysis across all data must show linearity, it must also be considered that regression lines for each group in the study must be the same. If the regression is heterogeneous, then covariance analysis will not be appropriate. The assumption of homogeneity of regression is a key issue in covariance. It is necessary to explain that in this study, post-tests of rumination, life satisfaction, and self-esteem were considered as dependent variables and their pre-tests as covariates. The assumption of homogeneity of slopes will be established when there is equality between covariates (in this study pre-tests) and dependent variables (in this study post-tests) at all levels of the factor (experimental and control groups). What will be considered is an insignificant interaction between dependent and covariate variables. The results showed that the interaction between covariate variables (pre-tests) and dependent variables (post-tests) at the factor levels (experimental and control groups) is not significant. Therefore, the assumption of homogeneity of regression is met.

Table 3 contents show that there is a significant difference between the experimental and control groups in terms of dependent variables at the level of $P \leq .05$, indicating that at least in one of the dependent variables (rumination, life satisfaction, and self-esteem), there is a significant difference between the two groups. Thus, the general hypothesis of the study is confirmed. To identify this difference, three covariance analyses were conducted in the text of MANCOVA. Based on the calculated effect size, 85% of the total variances of the experimental and control groups are due to the effect of the independent variable. Also, the statistical power of the test is 1.00, meaning that the test was able to reject the null hypothesis with 100% power.

Table 4

Results of MANCOVA on Post-test Scores of Rumination, Life Satisfaction, and Self-Esteem for Experimental and Control Groups

Dependent Variable	Sum of Squares	df	Mean Square	F	Significance Level	Effect Size	Statistical Power
Rumination	1734.44	1	1734.44	86.19	< 0.001	0.71	1.00
Life Satisfaction	207.84	1	207.84	56.39	< 0.001	0.61	1.00
Self-Esteem	240.04	1	240.04	115.71	< 0.001	0.76	1.00

According to Table 4 contents, the F value for the rumination variable was 86.19, which is significant at the level of P = .05. Therefore, Hypothesis 1 is confirmed, and it can be said that the emotion regulation training program has caused improvement in rumination in the experimental group compared to the control group. Also, the F value for the life satisfaction variable was 56.39, which is significant at the level of P = .05. Therefore, Hypothesis 2 is confirmed, and it can be said that the emotion regulation training program has caused improvement in life satisfaction in the experimental group compared to the control group. Additionally, based on Table 6 contents, the F value for the self-esteem variable was 115.71, which is significant at the level of P = .05.

4. Discussion and Conclusion

This study aimed to investigate the effectiveness of an emotion regulation training program on rumination, life satisfaction, and self-esteem among mothers of children with intellectual-developmental disabilities. The results demonstrated that emotion regulation training improves rumination, life satisfaction, and self-esteem in mothers of children with intellectual-developmental disabilities. These findings are consistent with the previous research (Abolghasemi & Baigi, 2011; Amin et al., 2020; Karami et al., 2019; Narimani et al., 2013; Rezvan et al., 2006). It can be explained that mothers of children with special needs experience more shame, deprivation, as well as stress and depression compared to mothers of typically developing children due to the unique connection between mothers and their children, making them highly sensitive to their children's issues; thus, the children's problems become a significant source of the mothers' mental health or lack

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8515

thereof. Among the treatments that can impact the mental health of mothers of children with intellectual-developmental disabilities, which has not yet been the focus of researchers, is emotion regulation training. Emotion regulation training means reducing and controlling negative emotions and positively using emotions (Abolghasemi & Baigi, 2011). Numerous studies show the positive effects of emotion regulation training on improving various psychological variables in samples of parents of children with special needs (Karami et al., 2019; Rezvan et al., 2006).

The emotion regulation training program improved life satisfaction in the experimental group compared to the control group. Teaching constructive emotion regulation strategies, such as delaying response, redirecting attention, and using cognitive reappraisal, enables subjects to more successfully manage their emotions, especially those unpleasant emotions caused by the stressors associated with their children's conditions. Consequently, this model reduces the negative load of emotions, allowing them to interact more logically and effectively with themselves and others, expand their knowledge on the nature of emotions and the types of pleasant and unpleasant emotions, and learn that each of these emotions has a useful function. More importantly, they learn how to behave in the face of these emotions. Dissatisfaction with life is also considered one of the life impairments that form and persist due to chronic emotional disturbances, whereas learning emotion regulation is associated with managing and timely adjusting emotions, preventing the intensification and persistence of disturbance. Additionally, emotion regulation includes teachings that, when learned, are associated with improved interpersonal functioning, especially in marital communications. Therefore, learning emotion regulation skills can increase life satisfaction among subjects.

5. Limitations & Suggestions

The limitations of the current study include a relatively small sample size and the focus on mothers from a specific geographical area, which may limit the generalizability of the findings. Additionally, the study's reliance on self-reported measures could introduce bias.

Future research could expand by including a larger, more diverse sample to enhance generalizability. Longitudinal studies are recommended to assess the long-term effects of emotion regulation training. Moreover, incorporating objective measures alongside self-reported data could provide a more comprehensive understanding of the impacts. For practice, integrating emotion regulation strategies into support programs for parents of children with intellectual-developmental disabilities is advised. Training could be tailored to address specific emotional challenges faced by these parents, potentially offered through community centers or healthcare providers, to improve their psychological well-being and coping mechanisms.

Acknowledgments

We would like to express our appreciation and gratitude to all those who cooperated in carrying out this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

Authors' Contributions

All authors contributed equally to this article.

References

Abolghasemi, A., & Baigi, P. (2011). Comparison the efficacy of trainings of cognitive-behavior and emotion regulation skills on self-efficacy and academic adjustment of students with test anxiety. *Educational Psychology*, *7*(22), 21-42. https://doi.org/10.22054/jep.2012.6055

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8515

Amin, T., ghanbari hashemabadi, b., & mashhadi, a. (2020). The Effectiveness of Professional Skills Training on Social Skills and Adaptive Behavior of Male Adolescents and Youth with an Intellectual and Developmental Disability. *Research in Clinical Psychology and Counseling*, *10*(1), 56-69. https://doi.org/10.22067/tpccp.2020.39364

Azarian, R., Mahdian, H., & Jajarmi, M. (2020). Comparison the Effectiveness of Academic Buoyancy and Emotion Regulation Training on Academic Meaning and Academic Adjustment. *Journal of Research in Educational Systems*, *14*(Special Issue), 483-494. https://www.jiera.ir/article_109773_c230cf659300db6cb12abb3b2a7a320f.pdf

Bahrami, Z., & Akbari Borang, M. (2023). The Relationship Between Self-Esteem and Marital Conflicts in College Students [Research]. *Journal of Psychology New Ideas*, *16*(20), 0-0. http://jnip.ir/article-1-938-en.html

Behrouian, M., Ramezani, T., Dehghan, M., Sabahi, A., & Zarandi, B. E. (2021). The Effect of the Emotion Regulation Training on the Resilience of Caregivers of Patients With Schizophrenia: A Parallel Randomized Controlled Trial. *BMC psychology*. https://doi.org/10.1186/s40359-021-00542-5

Darbani, S. A., & Parsakia, K. (2022). The effectiveness of strength-based counseling on the self-esteem of marital conflicted women. *Psychology of Woman Journal*, *3*(1), 46-55. https://doi.org/10.52547/psychowoman.3.1.46

Denny, B. T. (2020). Getting Better Over Time: A Framework for Examining the Impact of Emotion Regulation Training. *Emotion*. https://doi.org/10.1037/emo0000641

Goyal, A., Gopal, S., Venkataraman, L., Rangaswamy, T., & Tharoor, H. (2019). Psychometric properties of Tamil version of Body Weight Image and Self Esteem questionnaire (BWISE) in severe mental illness in a South Indian population. *Asian Journal of Psychiatry*, *41*, 28-33. https://doi.org/10.1016/j.ajp.2019.03.003

Karami, R., Sharifi, T., Nikkhah, M., & Ghazanfari, A. (2019). Effectiveness of Emotion Regulation Training Based on Grass Model on Reducing Rumination and Social Anxiety in Female Students with 60-Day Follow-up [Research]. *Iranian Journal of Health Education and Health Promotion*, *7*(1), 1-9. https://doi.org/10.30699/ijhehp.7.1.1

Khedmati, N. (2020). The Relationship between Rumination and Difficulty of Emotion Regulation with Self-harm Behaviors in Students [Research]. *Rooyesh-e-Ravanshenasi Journal(RRJ)*, *8*(11), 19-26. http://frooyesh.ir/article-1-1674-en.html http://frooyesh.ir/article-1-1674-en.pdf

Moreira, H., & Canavarro, M. C. (2018). The Association Between Self-Critical Rumination and Parenting Stress: The Mediating Role of Mindful Parenting. *Journal of Child and Family Studies*, *27*(7), 2265-2275. https://doi.org/10.1007/s10826-018-1072-x

Narimani, M., Abbasi, M., Abolghasemi, A., & Ahadi, B. (2013). A study comparing the effectiveness of acceptance/ commitment by emotional regulation training on adjustment in students with dyscalculia. *Journal of Learning Disabilities*, *2*(4), 154-176. https://doi.org/jld-2-4-92-5-9

Nozarpour, J., Fallahi-Khoshknab, M., Arsalani, N., Norouzi Tabrizi, K., & Ahmadi, F. (2022). Explaining the Concept of Violence Against the Older Adult: A Hybrid Study [Research]. *Salmand: Iranian Journal of Ageing*, *17*(1), 134-153. https://doi.org/10.32598/sija.2022.3302.1

Parsakia, K. (2023). The Effect of Chatbots and AI on The Self-Efficacy, Self-Esteem, Problem-Solving and Critical Thinking of Students. *Health Nexus*, *1*(1), 71-76. https://doi.org/10.61838/hn.1.1.14

Parsakia, K., & Darbani, S. A. (2022). Effectiveness of strength-based counseling on self-worth of divorced women. *Applied Family Therapy Journal (AFTJ)*, *3*(1), 687-700. https://journals.kmanpub.com/index.php/aftj/article/view/938

Rajabi, S., Abolghasemi, A., & Abbasi, M. (2012). The role of self-esteem and test anxiety in predicting life satisfaction in students with dyscalculia. *Journal of Learning Disabilities*, *1*(3), 46. https://www.magiran.com/paper/1008593

Rezvan, S., Bahrami, F., & Abedi, M. (2006). The Effect of Emotional Regulation on Happiness and Mental Rumination of Students [Original Research]. *Iranian Journal of Psychiatry and Clinical Psychology*, *12*(3), 251-257. http://ijpcp.iums.ac.ir/article-1-10-en.html

Varzdar, F., Ranjbaripour, T., & Rezabakhsh, H. (2019). The prediction of life satisfaction based on spiritual well-being and communication skills in exceptional children's parents [Research]. *Rooyesh-e-Ravanshenasi Journal(RRJ)*, *8*(10), 143-150. http://frooyesh.ir/article-1-1459-en.html http://frooyesh.ir/article-1-1459-en.pdf

Wei, Y. S., Chu, H., Chen, C. H., Hsueh, Y. J., Chang, Y. S., Chang, L.-I., & Chou, K. R. (2012). Support Groups for Caregivers of Intellectually Disabled Family Members: Effects on Physical–psychological Health and Social Support. *Journal of clinical nursing*. https://doi.org/10.1111/j.1365-2702.2011.04006.x

Zhao, S. H., He, B., Tang, X. T., Wang, X. L., Zhang, M. M., Zhou, J., & Wang, Y. H. (2022). Effect of Disability Severity on Home-based Care Quality Among Families With Uygur and Kazakh Disabled Older Adults in Far Western Rural China: A Cross-sectional Study. *İnternational journal of nursing practice*. https://doi.org/10.1111/ijn.13082

PWJ
Psychology of Woman Journal
E-ISSN: 3041-8515