IJBS

10.30491/IJBS.2021.266056.1453

International Journal of Behavioral Sciences

Original Paper

The Effect of Mindfulness-based Group Therapy on Aggression and Resilience of Suburban Children in Mashhad

Faezeh Mojarad[1] (MSc), Azita Keshavarz[1] (PhD)

1. Department of Psychology, Torbat-e-Jam Branch, Islamic Azad University, Torbat-e-Jam, Iran

Submitted: 29 May 2021
Accepted: 14 July 2021

Int J Behav Sci. 2021; 15(2): 144-149

Corresponding Author:
Faezeh Mojarad,
Department of Psychology,
Torbat-e-Jam Branch,
Islamic Azad University, Torbat-e-Jam,
Iran
E-mail: faezemojjaad1398@gmail.com

Abstract

Introduction: Given the effect of low socio-economic status of marginalized residents on children's behavioral and emotional problems, it is important to take measures to strengthen resilience and reduce aggression in children. This paper aims to determine the effect of mindfulness-based group therapy on resilience and aggression of children in the suburbs of Mashhad.
Method: This quasi-experimental study was performed on 60 elementary school students aged 8-12 years referred to the social worker and psychology clinic in Sayyedi district of Mashhad in 2019-2020. They were randomly assigned to the intervention (n = 30) and control (n = 30) groups. The intervention group received mindfulness-based group therapy using Kabat-Zinn's (2003) approach over 8 sessions of 90 min while the control group was placed on a waiting list. Data collection tools included the Social-Emotional Assets and Resilience Scale (SEARS) as well as the Buss and Perry Aggression Questionnaire (AGQ). Data analysis was conducted using SPSS 22 software and MANCOVA test.
Results: The results showed that mindfulness-based group therapy could significantly improve resilience and reduce aggression in the intervention group compared to the control group ($p<0.001$).
Conclusion: Mindfulness-based group therapy can be effective in mitigating aggression and enhancing resilience of children in the suburbs of Mashhad.

Keywords: Mindfulness, Marginalization, Suburbs, Aggression, Resilience, Children

Introduction

Marginalization is a global problem threatening societies across the world. It covers a range of concepts such as social exclusion, lack of equal opportunities, barriers to learning and participation, and poverty [1]. The suburbs are considered as marginalized areas [2]with special characteristics such as inadequate service facilities, high unemployment rate, illicit businesses, poverty and low social, cultural, health indicators, deprivation and severe discrimination. These areas are often home to people from low-income and social backgrounds [3]. The low socio-economic status of families dwelling in outskirts of cities is one of the main determinants of parenting and education of children, who often struggle with various social, economic and educational problems such as prevalence of behavioral and emotional issues [4]. Aggression in children is one of the maladaptive behaviors that can indirectly suggest family poverty and other kinds of parental deprivation [5]. According to the developmental psychology, the children's rejection by peers in the school can be influenced by social contexts such as marginalization. This in turn can exacerbate maladaptive aggressive behaviors and withdrawal from society [6]. Unusual patterns of aggression in children can be a predictor of lower educational and occupational status in adulthood, and its persistence can spark mental health problem such as anxiety and

depression [5]. From a personality stance, aggression in children poses an obstacle to the development of social adjustment, which if not dealt with from a sociologic perspective, can lead to crime and violence to cope with social inconsistencies in adulthood [7]. Children's aggressive behavior is the strongest predictor of various outcomes in adolescence such as school dropout, substance abuse, crime and unemployment. Children exhibiting resistant aggressive behaviors are at a greater risk of violence in adulthood [8]. They are also more likely to suffer consequences such as poor emotion regulation, delinquency, and destructive and antisocial behaviors in adolescence including conduct disorder and oppositional defiant disorder [9, 10].

Studies show that resilience can be a key factor in protecting children from aggressive behaviors in school [11]. It is because emotional-cognition regulation can play a major role in controlling aggression [12] and improved resilience can help prevent mental health disorders such as depression and anxiety in children through cognitive-emotional regulation [9]. Resilience is the ability to adapt and exploit support resources in the face of adversity where vulnerability and inefficiency rooted in the low socio-economic status of marginalized areas can be seen as a risk factor [13]. Resilience in children involves relative resistance to risky environmental experiences or tackling of stress and adversity that is strongly influenced by the family environment [14]. Thus, experiencing difficult living conditions is associated with decreased resilience in children, which if left untreated, can cause myriad psychological problems in children [15].

Based on the results of review and meta-analyses, therapies based on cognitive-behavioral approaches are the most common interventions that focus on aggression and resilience, which have been shown to have limited effectiveness [9, 16]. Mindfulness-based interventions are one of the third-wave cognitive-behavioral therapies that are effective in treating the symptoms of disorders such as depression, addiction and chronic pain [17]. Mindfulness, a form of meditation rooted in Buddhist spiritual practice, has recently gained popularity in the Western psychology due to the widespread use of standard mindfulness-based interventions [18]. There are several definitions of mindfulness, the most common of which has been proposed by Kabat-Zinn (2005). He conceptualized mindfulness as concentrating on a specific, purposeful, instantaneous and non-judgmental method[19]. Among the standard mindfulness-based interventions, the mindfulness approach based on stress reduction proposed by Kabat-Zinn has been used as a useful method to improve mental health and mitigate symptoms of stress, anxiety and depression. Often presented in a group format, it can be used at any age [18, 20]. Many studies have explored the effectiveness of mindfulness training on alleviation of aggression in adolescents with behavioral problems [21], and adults with Asperger syndrome [22], improvement of adult resilience [23] and emotional self-regulation in 4-6 year-old children [24]. Therefore, considering the effect of socio-economic deprivation in marginalized areas on the level of aggression and resilience in children and the adverse effect of aggression on the development of psychological issues and delinquency of children in the future, it is essential to take measures to prevent these consequences. This study was conducted to determine the effect of mindfulness-based group therapy on resilience and aggression in children living in the suburbs of Mashhad.

Method

This quasi-experimental study had a pretest-posttest design and a control group. It was performed on 60 school-aged students (8-12 years old) whose families had been referred to the psychology and social work clinic in the Sayyedi area of Mashhad, which is on the suburbs of Mashhad, by the Social Welfare Office in 2019-2020 [25].

In this study, after the approval of the ethics committee of Torbat-e-Jam Islamic Azad University, all families with children aged 12-8 years registering in the clinic were selected as the study population. The children whose parents agreed with their participation in the study and signed a written consent form were included in the study. The sample size was determined based on a preliminary study of 20 children referring to the clinic who met the study criteria. After the intervention, the mean and standard deviation of the total score of aggression and resilience were calculated in both intervention and control groups. Using the formula for comparison of mean and standard deviation of two communities at 95% confidence interval (CI) and 85% test power, the minimum sample size was estimated (n=29) in each group. Considering 10% sample attrition, 32 subjects were selected for each group (a total of 64 people).

The inclusion criteria were 8-12 years of age, residence in suburbs of Mashhad, absence of psychiatric disorders such as autism and proactivity, and lack of other psychological training at the same time. The exclusion criteria were missing more than one session of intervention and mental retardation.

The tools used in this study were as follows:

Social-Emotional Assets and Resilience Scale (SEARS): The scale was designed by Merrell et al. (2010) to assess children's positive socio-emotional characteristics and skills. This 52-item inventory, has 4 subscales including self-regulation, social empowerment, empathy and responsibility. Scoring is based on a 4-point Likert scale from 0 (never) to 3 (almost always). The total score is between 0 and 156 with a higher score indicating greater resilience. The reliability of this scale was estimated using the test-retest method (0.81) and its reported content validity was between 0.67 and 0.72 [26].

Buss and Perry Aggression Questionnaire (BPAQ): This 29-item questionnaire, which was designed by Buss and Perry (1992), measures four aspects of aggression. Physical aggression, verbal aggression, anger and hostility. Questions are scored on a 5-degree Likert scale (it is quite like me=5 to, it is not at all like me= 0). The total score is in the range of 29 to 145, with higher scores indicating greater aggression. The reliability of this questionnaire was calculated using Cronbach's alpha

coefficient for the subscales of physical aggression (0.85), verbal aggression (0.72), anger (0.83) and hostility (0.77), and the whole questionnaire (0.89). The face and content validity of this questionnaire was confirmed by Buss and Perry [27]. The sample was selected using available sampling method. Eligible children were assigned to intervention and control groups using time block random allocation. Accordingly, one block was considered for each week (one-week intervention block and one-week control block). The intervention and control blocks were selected by drawing straws. The time block created an equal opportunity for the children referring to the clinic to be assigned to the intervention and control groups. The intervention group received mindfulness-based group therapy based on the protocols introduced by Kabat-Zinn [28]. The intervention was performed in one of the clinic's counseling rooms by a psychologist who was specialized in working with children and mindfulness. The content of mindfulness-based group therapy was adapted to the language and sociocultural conditions of children living in these areas by the psychologist who carried out the intervention. She had more than 10 years of experience in working with children in marginalized areas and was familiar with the culture of the children living in this area. The content of the sessions was approved by two psychologists who had the experience of working in the suburbs. The intervention was held weekly for eight 90-min sessions in groups of 10 people. The content of the intervention sessions is listed in Table 1. The control group was placed on a waiting list. Data collection was performed in two stages before and after the intervention. Data were analyzed by SPSS-22 software. The normal distribution of dependent variables was assessed by the Kolmogorov-Smirnov test. MANCOVA was also used to test differences between groups and within-group comparison was conducted by the paired t-test.

Table 1. Content of Mindfulness-based Group Therapy According to Kabat –Zinn's Approach

Session	Content
1	Breathing: Introducing children to each other, arranging group agreements and explaining instructions, performing mindful eating and listening exercises and talking about them, breathing, presenting the daily homework and explaining how it should be done for children.
2	Starting again: It aims to help participants perform daily exercises by discussing their experience and obstacles in the way, search for pleasant life events, perform listening and eating exercises, do seaweed movement and breathing, and present the daily homework and how it should be done.
3	Observing unkind thoughts: It is aimed at supporting and encouraging participants to perform daily exercises, building up the ability to see thoughts in difficult and competitive situations and talk unkind mind, performing listening and eating exercises and discussing eating preferences, reviewing the homework, practicing mindfulness and observing thoughts, meeting the unkind mind, presenting daily homework and how it should be done.
4	Unpleasant feelings and experiences: It is aimed at examining thoughts and feelings related to unpleasant events and discussing the reasons behind resistance to them. developing children's emotional intelligence, performing listening and eating exercises, reviewing homework, recalling pleasant events and talking about them, discussing suffering, reviewing the unkind mind, doing rhythmic movements and yoga and talking about it, practicing emotional mindfulness, painting or writing poems about emotions, engaging in shy yoga dialogue and emotional dialogue, presenting daily homework and how it should be done.
5	Response and reaction: It seeks to review and expand the capacity of the participants, explore self-care and balance issues, boost the ability to respond rather than react, do listening and eating exercises, review homework, discuss emotion theory and improve emotions, discuss pleasant events, do yoga, talk about different holes and streets, present the daily homework and how it should be done.
6	Response and communication: It is intended to review children's experiences of holes (reactions) and streets (different answers), engage or avoid difficult conversations, introduce a kind heart as a cure for the unkind mind, do listening and eating exercises, review homework, check the body, describe difficult communications, practice conscious mind walking and kind heart dialogue, present the daily homework and how it should be done.
7	Communication and love: It is aimed at developing capacity to respond rather than react with a kind heart, introducing kindness as a special exercise for growing a kind heart, doing listening and eating exercises, reviewing homework and impulses, practicing answering instead of reacting, being kind and talking about it, presenting daily homework and how it should be done, reminding that the next session will be the last session.
8	Completion of the course: It aims to promote and nurture love, do listening and eating exercises, review homework, specify children's exercises, write a letter to a friend, express the final words of the course, do the final listening task, present daily homework and how it should be done.

Results

The final sample size include 60 people that were equally distributed in the intervention and control groups (n=30 in each group). Two subjects were excluded from the intervention group (because they missed the intervention sessions) and two from the control group (because they missed the post-test). About 53.3% of the participants in the present study were female and 46.7% were male with a mean age of 9.35 ± 1.77 years. There was no significant difference between the intervention and control groups in terms of the demographic information of children attending the study ($p < 0.05$) (Table 2).

The results of Kolmogorov-Smirnov test showed that the variables of resilience, aggression and their subscales have a normal distribution ($P > 0.05$). The significance level of MANCOVA test was determined by Wilkes Lambda test at 95% CI and $\alpha = 0.05$. Box's M test was used to test the assumption about the equality of covariance of dependent

variables at all levels (P>0.05). Pre-test scores were considered as a variable of quantities.

The results of MANCOVA test showed the lack of a significant difference between the intervention and control groups in terms of mean resilience score and its subscales (p<0.001) (Table 3). The corrected mean of Bonferroni index showed that the intervention could cause a significant increase in the mean score of resilience and its subscales compared to the control group (sig<0.001) (Table 4). Also, the findings of MANCOVA test showed a significant difference between the intervention and control groups in terms of mean aggression score and its subscales (p <0.05) (Table 3). The results of the corrected mean of Bonferroni index revealed that the intervention can induce a significant reduction in the mean score of aggression and its subscales in comparison to the control group (sig <0.001) (Table 4).

Table 2. Frequency Distribution of Participants in Terms of Demographic Information in the Intervention and Control Groups

Variables		Intervention group n(%)	control group n(%)	Test result
Sex	Boy	12(40.0)	16(53.3)	*P=0.44
	Girl	18(60.0)	14(46.7)	
Mother's job	Housewife	15(50.0)	13 (43.3)	**P=0.87
	Government employee	7(23.3)	8(26.7)	
	Self - employed	8(26.7)	9(30.0)	
Father's job	Self -employed	21(70.0)	21(70.0)	**P=0.89
	Government employee	4(13.3)	5(16.7)	
	Unemployed	5(16.7)	4(13.3)	
Mother's education	Uneducated	2(6.7)	0(0.0)	**P=0.46
	Primary	0(0.0)	1(3.3)	
	Secondary	15(50.0)	13(43.3)	
	Diploma	12(40.0)	14(46.7)	
	Academic	1(3.3)	2(6.7)	
Father's education	Uneducated	1(3.3)	0(0.0)	**P=0.81
	Primary	1(3.3)	1(3.3)	
	Secondary	18(60.0)	20(66.7)	
	Diploma	2(6.7)	3(10.0)	
	Academic	8(26.7)	6(20.0)	
Age		Mean ± SD	Mean ± SD	***P=0.94
		9.33 ± 1.78	9.37 ± 1.79	

*Fisher exact test
**Chi- Square Test
***Dependent T-test

Table 3. Results of MANCOVA Test Analysis in Intervention and Control Groups

Variables	Intervention group		Control group		Results of MANCOVA test		
	Pre-test	Post-test	Pre-test	Post-test			
	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD	f	Sig.	Partial eta
Self-regulation	32.33 ± 7.72	35.07 ± 6.57	30.97 ± 7.29	31.17 ± 7.21	53.91	0.001	0.50
Social empowerment	20.83 ± 4.46	22.20 ± 3.78	20.10 ± 5.48	20.27 ± 5.35	31.42	0.001	0.37
Empathy	10.13 ± 2.49	12.77 ± 1.61	11.20 ± 2.68	11.40 ± 2.58	59.61	0.001	0.52
Responsibility	22.27 ± 4.46	23.80 ± 4.13	21.63 ± 4.96	21.43 ± 4.78	41.41	0.001	0.43
Total resilience	85.57 ± 17.59	93.83 ± 14.13	83.90 ± 18.90	84.27 ± 18.57	65.48	0.001	0.57
Physical aggression	22.60 ± 5.63	20.13 ± 4.60	23.10 ± 5.65	24.23 ± 5.15	84.13	0.001	0.61
Verbal aggression	13.27 ± 3.95	11.33 ± 2.88	12.90 ± 4.63	13.37 ± 4.39	77.34	0.001	0.59
Anger	18.03 ± 4.75	16.33 ± 3.60	18.93 ± 4.90	19.63 ± 4.74	48.06	0.001	0.47
Hostility	20.87 ± 6.21	18.70 ± 4.87	21.93 ± 6.62	22.37 ± 6.38	53.48	0.001	0.50
Total aggression	74.77 ± 18.77	66.50 ± 14.02	76.87 ± 20.06	79.60 ± 18.82	123.69	0.001	0.70

Table 4. Results of the Mean of Bonferroni Correction Index

Variable	Sig.	95% CI for difference	
		Lower bound	Upper bound
Self-regulation	0.001	1.97	3.45
Social empowerment	0.001	0.86	1.82
Empathy	0.001	1.64	2.79
Responsibility	0.001	1.24	2.36
Total resilience	0.001	6.50	9.62
Physical aggression	0.001	4.55	2.92
Verbal aggression	0.001	2.96	1.86
Anger	0.001	3.32	1.83
Hostility	0.001	3.54	2.02
Total aggression	0.001	13.57	9.43

Discussion

This study aimed to evaluate the effect of mindfulness-based group therapy on aggression and resilience of suburban children in Mashhad. The results suggested that mindfulness-based group therapy could effectively reduce aggression and increase resilience in children participating in the present study. The results of other studies have shown that mindfulness training can mitigate aggression and impulsivity in adults with behavioral problems in the age range of 12 to 19 years [21] along with intelligence impairment [29]. Also, it is effective for the self-management of aggressive physical behaviors in adults with Asperger syndrome [22]. In these studies, mindfulness strategies were performed in adults with disorders, but, their findings are consistent with the present study regarding the role of mindfulness strategies in controlling and managing aggressive behaviors. On the other hand, research shows that mindfulness based on cognitive therapy for children can affect the emotional-social resilience of children aged 9-13 years [30] . Also, it improves adaptive behaviors in students with mild depression[31]. The results of these studies are consistent with the findings of the present study. Another study on adults have shown that mindfulness-based on stress reduction can enhance stress tolerance and resilience [23]. This study was undertaken on adults whose levels of cognitive development is different from children, but the results are aligned with those of the present study. The results of other studies on children suggest that mindfulness-based programs can enhance emotional self-regulation in children aged 4-6 years [24] and affect attention regulation in school-age children [32]. They lend credit to the results of the present study about the effectiveness of mindfulness in children.

Recent studies have shown that there is a connection between rumination, hostility, anger and aggression. Rumination includes repetitive and uncontrollable thoughts about negative internal and external experiences [33] and its cognitive processes can counteract the techniques used to reduce aggressive behaviors. Rumination is perceived as an intellectual model of problem-solving strategy in individuals but it has a deleterious spiral effect on aggressive behaviors. Rumination of anger manifests as hostility and aggression [34]. Mindfulness-based interventions that target rumination can be effective in reducing and controlling aggression [33].

The severe cases of rumination may not be observed in children aged 7-12 years. This is usually expressed verbally through specific words of children. However, it seems that mindfulness group therapy based on Kabat- Zinn's (2003) approach can help children to focus on their thoughts and mitigate aggressive behaviors by reinforcing their positive emotional state and behavioral self-regulation [35]. On the other hand, mindfulness involves focusing on perceptions, thoughts, emotions, and bodily feelings without passing judgement. This review of experiences without judgement reduces rumination and improves emotion regulation [19]. Resilience is an anti-stress characteristic that is associated with positive psychological outcomes. Therefore, it seems that mindfulness can boost tolerance, improve psychopathology [23] and help bolster resilience in children in the present study.

The present research had some limitations including cultural weakness, low level of education and financial problems of families in these areas. The parents were often against their children's participation in the research due to the time and expense of traveling to the clinic. Hence, unless there was a reward, they would refuse to participate in the research. Therefore, to carry out preventive interventions on children's psychological problems, it is suggested to allocate more budget to research in order to reinforce the cooperation of people in deprived and marginalized areas.

Conclusion

Mindfulness group therapy based on Kabat- Zinn’s (2003) approach can be effective in alleviating aggression and improving resilience of children living in the suburbs of Mashhad. Therefore, it is suggested to adopt this technique as a way of controlling aggression and fostering resilience in children at deprived areas.

Conflict of Interest

The authors declare that they have no conflicts of interest.

Ethical Approval

This article was extracted from a research project (ethics code IR.IAU.TJ.REC.1399.023), which was approved by the Research Vice Chancellor of the Islamic Azad University of Torbat-e Jam.

Acknowledgment

The authors would like to thank the Islamic Azad University of Torbat-e-Jam Branch for the approval of this research as well as all the parents of the children participating in this study for their patience and cooperation. Also, many thanks to the colleagues at the psychology and social work clinic in Sayyedi area of Mashhad for their sincere cooperation.

Reference

1. Mowat, J.G., Towards a new conceptualisation of marginalisation. European Educational Research Journal, 2015. 14(5): p. 454-476.
2. Fagan, B., Western Sydney as outer suburbia: marginalisation in practice? in Theory and Practice, 1993: p. 11.
3. Zarghani, S. and M. Badakshan, The security challenges of marginalization with emphasis on Mashhad City. Intern Congr Architect Urban, 2018. 9: p. 1-10.
4. Kaloiya, G.S., S.C. Basu, and S.C. Basu, Academic achievement, behavioral and emotional problem among marginalised children. The International Journal of Indian Psychology, 2017. 4(3): p. 36-49.
5. Serbin, L.A., et al., Predicting family poverty and other disadvantaged conditions for child rearing from childhood aggression and social withdrawal: A 30-year longitudinal study. International Journal of Behavioral Development, 2011. 35(2): p. 97-106.
6. Mikami, A.Y., M.D. Lerner, and J. Lun, Social context influences on children’s rejection by their peers. Child Development Perspectives, 2010. 4(2): p. 123-130.
7. Xiang, Y., Z. Chen, and J. Zhao, How Childhood Maltreatment Impacts Aggression from Perspectives of Social Comparison and

Resilience Framework Theory. Journal of Aggression, Maltreatment & Trauma, 2019: p. 1-12.
8. Lambregtse-van den Berg, M.P., et al., Early childhood aggressive behaviour: Negative interactions with paternal antisocial behaviour and maternal postpartum depressive symptoms across two international cohorts. European psychiatry, 2018. 54: p. 77-84.
9. Dray, J., et al., Systematic review of universal resilience-focused interventions targeting child and adolescent mental health in the school setting. Journal of the American Academy of Child & Adolescent Psychiatry, 2017. 56(10): p. 813-824.
10. Campbell, S.B., et al., Predictors and sequelae of trajectories of physical aggression in school-age boys and girls. Development and psychopathology, 2010. 22(1): p. 133.
11. Cohen, E., et al., Individual resilience: A major protective factor in peer bullying and victimization of elementary school children in Israel. Journal of interpersonal violence, 2019: p. 0886260519863192.
12. Hejrani-Diarjan, H., M. Shahriari Ahmadi, and M. Esteki, The Comparison of the Effectiveness of the Behavioral Cognitive Play and Child-parent Interaction Based Play Application on Anger, Anxiety and Emotional Cognitive Regulation in Aggressive Students. International Journal of Behavioral Sciences, 2020. 14(3): p. 108-115.
13. Hutcheon, E. and B. Lashewicz, Theorizing resilience: Critiquing and unbounding a marginalizing concept. Disability & Society, 2014. 29(9): p. 1383-1397.
14. Bowes, L., et al., Families promote emotional and behavioural resilience to bullying: evidence of an environmental effect. Journal of child psychology and psychiatry, 2010. 51(7): p. 809-817.
15. Masten, A.S. and A.J. Barnes, Resilience in children: Developmental perspectives. Children, 2018. 5(7): p. 98.
16. Lee, A.H. and R. DiGiuseppe, Anger and aggression treatments: a review of meta-analyses. Current Opinion in Psychology, 2018. 19: p. 65-74.
17. Goldberg, S.B., et al., Mindfulness-based interventions for psychiatric disorders: A systematic review and meta-analysis. Clinical psychology review, 2018. 59: p. 52-60.
18. Gu, J., et al., How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies. Clinical psychology review, 2015. 37: p. 1-12.
19. Kallapiran, K., et al., Review: Effectiveness of mindfulness in improving mental health symptoms of children and adolescents: A meta- analysis. Child and Adolescent Mental Health, 2015. 20(4): p. 182-194.
20. Burke, C.A., Mindfulness-based approaches with children and adolescents: A preliminary review of current research in an emergent field. Journal of child and family studies, 2010. 19(2): p. 133-144.
21. Franco, C., et al., Effect of a mindfulness training program on the impulsivity and aggression levels of adolescents with behavioral problems in the classroom. Frontiers in psychology, 2016. 7: p. 1385.
22. Singh, N.N., et al., Adolescents with Asperger syndrome can use a mindfulness-based strategy to control their aggressive behavior. Research in autism spectrum disorders, 2011. 5(3): p. 1103-1109.
23. Nila, K., et al., Mindfulness-based stress reduction (MBSR) enhances distress tolerance and resilience through changes in mindfulness. Mental Health & Prevention, 2016. 4(1): p. 36-41.
24. Viglas, M. and M. Perlman, Effects of a mindfulness-based program on young children's self-regulation, prosocial behavior and hyperactivity. Journal of Child and Family Studies, 2018. 27(4): p. 1150-1161.
25. Saberifar, R. and H. Jangi, Study of Indices of Proper Housing Model from the Perspective of Residents of Marginal Groups in Mashhad. ournal of Applied researches in Geographical Sciences, 2017. 17(46): p. 139-157.
26. Merrell, K.W., J.C. Felver-Gant, and K.M. Tom, Development and validation of a parent report measure for assessing social-emotional competencies of children and adolescents. Journal of Child and Family Studies, 2011. 20(4): p. 529-540.
27. Buss, A.H. and M. Perry, The Aggression Questionnaire. Journal of Personality and Social Psychology, 1992. 63(3): p. 452-459.
28. Kabat-Zinn, J., Mindfulness-based stress reduction (MBSR). Constructivism in the Human Sciences, 2003. 8(2): p. 73.
29. Griffith, G.M., et al., Can a mindfulness-informed intervention reduce aggressive behaviour in people with intellectual disabilities? Protocol for a feasibility study. Pilot and feasibility studies, 2016. 2(1): p. 58.
30. Semple, R.J., et al., A randomized trial of mindfulness-based cognitive therapy for children: Promoting mindful attention to enhance social-emotional resiliency in children. Journal of Child and Family Studies, 2010. 19(2): p. 218-229.
31. Tajik, R., H. Shahed Hagh Ghadam, and A.-M. Rahnejat, The Effectiveness of Mindfulness-Based Cognitive Therapy in Improving Adaptive Behaviors, Quality of Life, and Self-Efficiency of Students with Mild Depression. International Journal of Behavioral Sciences, 2020. 13(4): p. 142-146.
32. Felver, J.C., et al., The effects of mindfulness-based intervention on children's attention regulation. Journal of Attention Disorders, 2017. 21(10): p. 872-881.
33. Borders, A., M. Earleywine, and A. Jajodia, Could mindfulness decrease anger, hostility, and aggression by decreasing rumination? Aggressive Behavior: Official Journal of the International Society for Research on Aggression, 2010. 36(1): p. 28-44.
34. Peters, J.R., et al., Anger rumination as a mediator of the relationship between mindfulness and aggression: The utility of a multidimensional mindfulness model. Journal of clinical psychology, 2015. 71(9): p. 871-884.
35. Saltzman, A. and P. Goldin, Mindfulness-based stress reduction for school-age children. 2008.