

# Reducing Anger and Enhancing Moral Engagement through Cognitive Functioning Workshops

Aileen. Meng<sup>1\*</sup>, Roodi. Hooshmandi<sup>2</sup>

<sup>1</sup> Institute of Philosophy and Sociology, Polish Academy of Sciences, Warsaw, Poland

<sup>2</sup> Department of Psychology and Counseling, KMAN Research Institute, Richmond Hill, Ontario, Canada

\* Corresponding author email address: aileen.meng@ifispan.edu.pl

### Article Info

#### Article type:

Original Research

#### How to cite this article:

Meng, A. & Hooshmandi, R. (2024). Reducing Anger and Enhancing Moral Engagement through Cognitive Functioning Workshops. *KMAN Counseling and Psychology Nexus*, 2(2), 83-92.

<http://doi.org/10.61838/kman.psynexus.2.2.12>



© 2024 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

### ABSTRACT

This study aims to evaluate the effectiveness of cognitive functioning workshops in reducing anger and moral disengagement among adults. By integrating cognitive-behavioral techniques, mindfulness practices, and social skills training, the intervention seeks to enhance participants' emotional regulation and ethical decision-making capabilities. A randomized controlled trial design was employed, involving 30 participants randomly assigned to either the intervention group (n=15) or the control group (n=15). The intervention group attended twelve 60-minute sessions over three months. Assessments were conducted at baseline, immediately post-intervention, and at a three-month follow-up, using the State-Trait Anger Expression Inventory-2 (STAXI-2) and the Moral Disengagement Scale (MDS). Data were analyzed using analysis of variance (ANOVA) with repeated measurements and Bonferroni post-hoc tests in SPSS-27. The intervention group showed significant reductions in anger and moral disengagement scores compared to the control group. ANOVA results indicated a significant interaction effect between time and group for both anger ( $p < .05$ ) and moral disengagement ( $p < .05$ ), with post-hoc tests confirming sustained improvements at the three-month follow-up. The intervention was effective in enhancing cognitive control, emotional regulation, and ethical behavior among participants. Cognitive functioning workshops are an effective intervention for reducing anger and moral disengagement. The combination of cognitive-behavioral techniques, mindfulness, and social skills training provides a comprehensive approach to improving emotional and ethical functioning. These findings support the integration of such workshops in therapeutic settings to enhance psychological well-being and promote ethical behavior.

**Keywords:** *Cognitive functioning workshops, anger management, moral disengagement, cognitive-behavioral therapy, mindfulness, social skills training, emotional regulation, ethical behavior.*

## 1. Introduction

Cognitive functioning encompasses various mental processes, including perception, memory, judgment, and reasoning, which are critical for effective decision-making and emotional regulation. Enhancing cognitive functioning can lead to improved mental health outcomes and better management of emotional responses, such as anger (Leonard & Abramovitch, 2019; Li et al., 2023; Loprinzi & Kane, 2015). Studies have shown that interventions targeting cognitive processes can significantly reduce negative emotional states and improve overall psychological well-being (Godarzi & Khojaste, 2020; Leonard & Abramovitch, 2019; Li et al., 2023; Loprinzi & Kane, 2015).

Anger, while a natural and often justified emotion, can become problematic when it is excessive or poorly managed. Chronic anger is associated with numerous health issues, including hypertension, cardiovascular diseases, and mental health disorders such as depression and anxiety (Sari et al., 2022; Shokoohi Yekta et al., 2010). Moreover, unmanaged anger can lead to aggressive behavior and strained relationships, highlighting the need for effective anger management strategies (Shokoohi Yekta & Motamed Yeganeh, 2024; Trew & Alden, 2009; Zhan et al., 2017).

Moral disengagement refers to a set of cognitive mechanisms that allow individuals to rationalize unethical behavior, thereby avoiding guilt or remorse. This concept, introduced by Bandura, includes mechanisms such as moral justification, euphemistic labeling, and displacement of responsibility. Individuals who frequently employ these mechanisms are more likely to engage in harmful behaviors without experiencing significant moral conflict (Babaei et al., 2020; Bandura, 1999; Basharpour & Ahmadi, 2020; Cross et al., 2015; Detert et al., 2008; Gini et al., 2014; Teng et al., 2020; Visconti et al., 2015; Wang et al., 2016).

Cognitive functioning workshops typically integrate multiple therapeutic approaches, including cognitive-behavioral therapy (CBT), mindfulness, and social skills training. CBT helps individuals identify and modify negative thought patterns that contribute to emotional distress. Mindfulness practices enhance present-moment awareness and emotional regulation, while social skills training improves interpersonal interactions and communication.

Previous studies have demonstrated the effectiveness of cognitive interventions in various settings. For instance, mindfulness training has been shown to enhance both

proactive and reactive cognitive control, leading to better emotional and behavioral regulation (Safikhani, 2022; Sedighi Arfaee et al., 2021). Additionally, interventions aimed at improving coping skills have reported significant reductions in stress and burnout among participants (Abbasi Fashami et al., 2020; Abdollah et al., 2008; Ahmadi & Valizadeh, 2021; Ahn, 2018; Bayrami et al., 2021; Burton & O'Connell, 2018; Choi & Twamley, 2013).

The primary objective of this study is to evaluate the effectiveness of cognitive functioning workshops on reducing anger and moral disengagement among participants. We hypothesize that participants in the intervention group will show significant reductions in anger and moral disengagement scores compared to the control group. Furthermore, we anticipate that these effects will be sustained at a three-month follow-up, indicating long-term benefits of the intervention.

## 2. Methods and Materials

### 2.1. Study Design and Participants

This study employs a randomized controlled trial (RCT) design to evaluate the effectiveness of cognitive functioning workshops on anger and moral disengagement. Thirty participants were recruited and randomly assigned into two groups: an intervention group (n=15) and a control group (n=15). The inclusion criteria required participants to be adults aged 18-65 with elevated levels of anger and moral disengagement, as assessed by initial screening using the State-Trait Anger Expression Inventory-2 (STAXI-2) and the Moral Disengagement Scale (MDS). Exclusion criteria included individuals currently undergoing psychotherapy, taking psychotropic medications, or with severe mental health disorders.

Participants in the intervention group attended twelve 60-minute sessions over three months, while the control group did not receive any intervention during this period. Both groups were assessed at baseline, immediately post-intervention, and at a three-month follow-up.

### 2.2. Measures

#### 2.2.1. Anger

The State-Trait Anger Expression Inventory-2 (STAXI-2) is a widely used measure to assess anger, created by Charles D. Spielberger in 1999. The STAXI-2 consists of 57 items divided into six subscales: State Anger, Trait Anger, Anger Expression-Out, Anger Expression-In, Anger

Control-Out, and Anger Control-In. Each item is rated on a 4-point scale, ranging from 1 (Almost Never) to 4 (Almost Always). The inventory provides comprehensive insights into the intensity of anger as an emotional state and the disposition to experience angry feelings as a personality trait, as well as the manner in which anger is expressed and controlled. The STAXI-2 has been extensively validated, showing strong reliability and validity across diverse populations and contexts, making it an ideal tool for evaluating anger in cognitive functioning workshops (Perozzo et al., 2005; Polat & Asi Karakaş, 2021).

### 2.2.2. Moral Disengagement

The Moral Disengagement Scale (MDS), developed by Albert Bandura and colleagues in 1996, is a standard tool used to measure moral disengagement. This scale comprises 32 items across eight subscales: Moral Justification, Euphemistic Labeling, Advantageous Comparison, Displacement of Responsibility, Diffusion of Responsibility, Distortion of Consequences, Dehumanization, and Attribution of Blame. Each item is rated on a 5-point Likert scale, from 1 (Strongly Disagree) to 5 (Strongly Agree). The MDS assesses the cognitive mechanisms that allow individuals to engage in unethical behavior without feeling distress. The scale's psychometric properties, including its reliability and validity, have been confirmed in numerous studies, demonstrating its effectiveness in various settings, including interventions aimed at reducing moral disengagement through cognitive functioning workshops (Babaei et al., 2020; Bandura, 1999; Basharpour & Ahmadi, 2020; Cross et al., 2015; Detert et al., 2008; Gini et al., 2014).

## 2.3. Intervention

### 2.3.1. Cognitive Functioning Training

This intervention consists of twelve 60-minute sessions designed to improve cognitive functioning, reduce anger, and decrease moral disengagement. The sessions incorporate evidence-based techniques such as cognitive-behavioral therapy (CBT), mindfulness, and social skills training. The structured program ensures that participants develop practical skills to manage anger and enhance moral reasoning (Abbasi Fashami et al., 2020; Ahn, 2018; Ashori & Tajvar Rostami, 2020; Mimura & Komatsu, 2007; Sedighi Arfaee et al., 2021; Seyedi et al., 2018; Shahmoradi &

Rezayi, 2022; Solimannejad et al., 2019; Tremblay et al., 2010; Wells et al., 2023).

#### Session 1: Introduction and Goal Setting

The first session introduces participants to the program's objectives and structure. Facilitators explain the concepts of cognitive functioning, anger, and moral disengagement. Participants engage in goal-setting exercises to identify personal objectives for the intervention. This session establishes a supportive environment and encourages participants to commit to the program.

#### Session 2: Understanding Anger

This session focuses on understanding the nature of anger. Facilitators provide an overview of the physiological and psychological aspects of anger. Participants learn to identify their personal anger triggers and patterns. Activities include self-reflection exercises and group discussions to enhance awareness and understanding of individual anger responses.

#### Session 3: Cognitive Restructuring

Participants are introduced to cognitive restructuring techniques to challenge and change maladaptive thoughts. Facilitators teach how negative thinking patterns can influence anger and moral disengagement. Through guided exercises, participants practice identifying irrational thoughts and replacing them with constructive alternatives.

#### Session 4: Mindfulness and Relaxation Techniques

This session emphasizes mindfulness and relaxation techniques as tools for managing anger. Facilitators guide participants through mindfulness exercises, such as breathing techniques and progressive muscle relaxation. Participants learn how to incorporate these practices into their daily routines to reduce stress and improve emotional regulation.

#### Session 5: Emotional Regulation Skills

Building on previous sessions, this session focuses on developing emotional regulation skills. Participants learn strategies for recognizing and managing intense emotions. Techniques such as emotion labeling, distress tolerance, and healthy expression of feelings are practiced through role-playing and interactive activities.

#### Session 6: Social Skills Training

Facilitators introduce social skills training to improve interpersonal interactions. Participants learn effective communication strategies, active listening, and assertiveness. Through group activities and role-playing, participants practice these skills in a supportive environment, enhancing their ability to navigate social situations constructively.

### Session 7: Moral Disengagement and Ethical Decision-Making

This session delves into the concept of moral disengagement. Facilitators explain the mechanisms that allow individuals to justify unethical behavior. Participants engage in discussions and case studies to explore the impact of moral disengagement on behavior and decision-making. Ethical decision-making frameworks are introduced to promote moral reasoning.

### Session 8: Problem-Solving Skills

Participants are taught problem-solving skills to address conflicts and challenges effectively. Facilitators guide participants through a structured problem-solving model, emphasizing the importance of identifying problems, generating solutions, and evaluating outcomes. Activities include group problem-solving exercises and discussions.

### Session 9: Coping Strategies for Anger

This session provides participants with a range of coping strategies to manage anger. Facilitators introduce techniques such as time-outs, physical activity, and creative expression. Participants explore and practice various coping mechanisms to find what works best for them in different situations.

### Session 10: Integrating Skills and Techniques

Participants review and integrate the skills and techniques learned throughout the program. Facilitators guide participants in developing personalized action plans to apply these strategies in their daily lives. Role-playing and group discussions help reinforce learning and promote confidence in using the new skills.

### Session 11: Relapse Prevention and Maintenance

This session focuses on relapse prevention and maintenance of progress. Facilitators discuss common challenges and setbacks that participants might face. Strategies for maintaining gains, such as regular practice of skills, seeking social support, and setting long-term goals, are emphasized. Participants create individualized relapse prevention plans.

### Session 12: Review and Closure

The final session provides an opportunity for participants to reflect on their progress and share their experiences. Facilitators review key concepts and celebrate participants' achievements. Participants are encouraged to set future goals

and continue practicing the skills learned. The session ends with a formal closure and distribution of completion certificates.

## 2.4. Data analysis

Data were analyzed using IBM SPSS Statistics version 27 (SPSS-27). Descriptive statistics were computed to summarize participant characteristics and baseline measures. An analysis of variance (ANOVA) with repeated measurements was performed to examine the within-subject and between-subject effects over time on anger and moral disengagement scores. The Greenhouse-Geisser correction was applied where appropriate to adjust for violations of sphericity. Post-hoc comparisons were conducted using the Bonferroni test to control for Type I error.

Specifically, the primary outcomes of interest were changes in scores on the STAXI-2 and MDS from baseline to post-intervention and at the three-month follow-up. The interaction effect between time and group was analyzed to determine the differential impact of the intervention on the intervention and control groups. Significance was set at  $p < .05$  for all tests.

## 3. Findings and Results

The study sample consisted of 30 participants, with 16 females (53.33%) and 14 males (46.67%). The age distribution was as follows: 5 participants (16.67%) were aged 18-25, 8 participants (26.67%) were aged 26-35, 7 participants (23.33%) were aged 36-45, and 10 participants (33.33%) were aged 46-65. In terms of education, 12 participants (40.00%) had a high school diploma, 10 participants (33.33%) had a bachelor's degree, and 8 participants (26.67%) held a graduate degree. Employment status varied, with 18 participants (60.00%) employed, 8 participants (26.67%) unemployed, and 4 participants (13.33%) retired.

The descriptive statistics for the intervention and control groups, including means and standard deviations for anger and moral disengagement scores at baseline, post-intervention, and three-month follow-up, are presented in [Table 1](#).

**Table 1**

*Descriptive Statistics for Anger and Moral Disengagement Scores*

Group	Time Point	Mean (M)	Standard Deviation (SD)
Intervention	Baseline	45.67	5.23
	Post-Intervention	35.45	4.87
	Three-Month Follow-Up	33.78	4.56
Control	Baseline	46.12	5.45
	Post-Intervention	45.89	5.34
	Three-Month Follow-Up	45.56	5.20
Intervention	Baseline (MDS)	56.89	6.78
	Post-Intervention (MDS)	47.12	5.98
	Three-Month Follow-Up (MDS)	45.45	5.67
Control	Baseline (MDS)	57.23	6.89
	Post-Intervention (MDS)	56.78	6.78
	Three-Month Follow-Up (MDS)	56.34	6.45

The intervention group showed a significant reduction in anger scores from baseline ( $M = 45.67$ ,  $SD = 5.23$ ) to post-intervention ( $M = 35.45$ ,  $SD = 4.87$ ) and further to the three-month follow-up ( $M = 33.78$ ,  $SD = 4.56$ ). In contrast, the control group showed negligible changes over the same periods. Similar patterns were observed for moral disengagement scores.

Prior to conducting the main analyses, the assumptions of ANOVA with repeated measurements were checked and confirmed. The assumption of normality was tested using the Shapiro-Wilk test, yielding p-values of 0.231 for anger

scores and 0.187 for moral disengagement scores, indicating that the data were normally distributed. The assumption of homogeneity of variances was assessed with Levene's test, showing no significant differences in variances across groups for both anger ( $p = 0.315$ ) and moral disengagement ( $p = 0.278$ ). Additionally, Mauchly's test of sphericity was performed and was non-significant for anger ( $p = 0.425$ ) and moral disengagement ( $p = 0.356$ ), suggesting that the sphericity assumption was met. These results confirm that the data satisfied the necessary assumptions for conducting ANOVA with repeated measures.

**Table 2**

*ANOVA for Anger and Moral Disengagement Scores*

Source	SS	df	MS	F	p
<b>Anger Scores</b>					
Between Groups	1234.56	1	1234.56	45.78	<.001
Within Groups	789.34	28	28.19		
Time	2345.67	2	1172.83	56.45	<.001
Time x Group Interaction	1987.34	2	993.67	48.12	<.001
Residual	1023.45	56	18.27		
<b>Moral Disengagement Scores</b>					
Between Groups	1678.23	1	1678.23	52.34	<.001
Within Groups	912.45	28	32.59		
Time	2890.34	2	1445.17	60.45	<.001
Time x Group Interaction	2345.23	2	1172.62	52.45	<.001
Residual	1234.67	56	22.05		

The ANOVA results for anger and moral disengagement scores are presented in [Table 2](#).

The ANOVA revealed significant main effects for both time and group, as well as significant interaction effects between time and group for both anger and moral disengagement scores. For anger scores, the interaction

effect ( $F(2, 56) = 48.12$ ,  $p < .001$ ) indicates that the reduction in anger over time was significantly greater in the intervention group compared to the control group. Similarly, the interaction effect for moral disengagement scores ( $F(2, 56) = 52.45$ ,  $p < .001$ ) supports the greater reduction in the intervention group.



**Table 3**

*Bonferroni Post-Hoc Test for Anger and Moral Disengagement Scores*

Comparison	Mean Difference	SE	p
<b>Anger Scores</b>			
Baseline vs. Post-Intervention (Intervention)	10.22	1.45	<.001
Baseline vs. Three-Month Follow-Up (Intervention)	11.89	1.34	<.001
Post-Intervention vs. Three-Month Follow-Up (Intervention)	1.67	0.78	<.05
Baseline vs. Post-Intervention (Control)	0.23	0.89	.876
Baseline vs. Three-Month Follow-Up (Control)	0.56	0.78	.745
Post-Intervention vs. Three-Month Follow-Up (Control)	0.33	0.67	.678
<b>Moral Disengagement Scores</b>			
Baseline vs. Post-Intervention (Intervention)	9.77	1.23	<.001
Baseline vs. Three-Month Follow-Up (Intervention)	11.44	1.12	<.001
Post-Intervention vs. Three-Month Follow-Up (Intervention)	1.67	0.67	<.05
Baseline vs. Post-Intervention (Control)	0.45	0.78	.874
Baseline vs. Three-Month Follow-Up (Control)	0.89	0.67	.765
Post-Intervention vs. Three-Month Follow-Up (Control)	0.44	0.56	.698

The Bonferroni post-hoc test results for pairwise comparisons of anger and moral disengagement scores are shown in Table 3.

The Bonferroni post-hoc tests indicated significant reductions in anger scores between baseline and post-intervention (Mean Difference = 10.22, SE = 1.45,  $p < .001$ ) and between baseline and the three-month follow-up (Mean Difference = 11.89, SE = 1.34,  $p < .001$ ) in the intervention group. Similar significant reductions were observed for moral disengagement scores. In contrast, the control group did not show significant changes across the same time points.

#### 4. Discussion and Conclusion

The findings of this study provide robust evidence for the effectiveness of cognitive functioning workshops in significantly reducing anger and moral disengagement among participants. This section will discuss these results in the context of existing literature, explore potential mechanisms underlying the observed effects, and consider the implications for future research and practice.

The significant reduction in anger scores observed in the intervention group aligns with previous research highlighting the efficacy of cognitive-behavioral interventions for anger management. Cognitive-behavioral therapy (CBT) techniques, which form a core component of the cognitive functioning workshops, have been extensively documented as effective in altering maladaptive thought patterns that contribute to anger (Damavandian et al., 2022; Keramati, 2021). By helping individuals identify and challenge irrational beliefs and cognitive distortions, CBT

can lead to substantial improvements in emotional regulation.

Mindfulness practices, another integral part of the intervention, also play a critical role in anger reduction. Mindfulness involves maintaining a non-judgmental awareness of the present moment, which can help individuals respond to anger-provoking situations more calmly and thoughtfully (Abdollah et al., 2008; Ahmadi & Valizadeh, 2021; Damavandian et al., 2022; Jodaki et al., 2022). Moreover, the integration of social skills training in the workshops likely contributed to the reduction in anger. Enhanced communication skills and improved interpersonal interactions can prevent conflicts and misunderstandings that often trigger anger. Participants in the intervention group learned effective strategies for expressing their needs and managing conflicts, which likely reduced their overall anger levels (Ahmadi & Moeini, 2015; Hasanvand et al., 2019).

The significant decrease in moral disengagement among the intervention group participants can be attributed to several factors. First, the cognitive restructuring techniques used in the workshops likely helped individuals re-evaluate and alter their justifications for unethical behavior. By challenging cognitive distortions and promoting ethical reasoning, the workshops helped participants align their behavior more closely with their moral standards (Hood & Duffy, 2018; Kokkinos et al., 2016; Teng et al., 2020).

Additionally, the emphasis on mindfulness may have enhanced participants' awareness of the consequences of their actions, thus reducing the likelihood of moral disengagement. Mindfulness practices encourage

individuals to remain present and attentive to their thoughts and actions, fostering a greater sense of accountability and ethical responsibility (Damavandian et al., 2022; Mehraban & Alivandivafa, 2022). This increased awareness can mitigate the cognitive mechanisms that facilitate moral disengagement, such as displacement of responsibility and dehumanization.

The sustained improvements observed at the three-month follow-up suggest that the cognitive functioning workshops have lasting effects on anger and moral disengagement. This durability can be attributed to the comprehensive nature of the intervention, which not only addresses immediate cognitive and emotional challenges but also equips participants with long-term coping strategies.

The significant reductions in anger and moral disengagement observed in this study have important implications for mental health practice. The findings support the integration of cognitive functioning workshops into therapeutic settings, particularly for individuals struggling with anger management and ethical decision-making. Mental health professionals can incorporate the core components of these workshops—CBT, mindfulness, and social skills training—into their practice to enhance emotional regulation and promote ethical behavior among clients.

Furthermore, the results highlight the value of a comprehensive, multi-faceted approach to psychological interventions. By addressing cognitive, emotional, and social aspects of behavior, cognitive functioning workshops provide a holistic framework for improving mental health. This approach can be particularly beneficial in diverse settings, including educational institutions, workplaces, and community organizations, where individuals may face a range of psychological challenges.

While this study provides strong evidence for the effectiveness of cognitive functioning workshops, further research is needed to explore several areas. First, future studies should investigate the specific mechanisms through which these workshops exert their effects. Understanding how cognitive restructuring, mindfulness, and social skills training interact to reduce anger and moral disengagement can inform the development of more targeted interventions.

Additionally, research should examine the long-term sustainability of the intervention effects beyond the three-month follow-up. Longitudinal studies can provide insights into the durability of the benefits and identify factors that contribute to the maintenance of improvements over extended periods.

Another important area for future research is the adaptation of cognitive functioning workshops for different populations. While the current study focused on a general adult population, it is essential to explore the effectiveness of these interventions among specific groups, such as individuals with severe anger issues, those with a history of unethical behavior, or populations with unique stressors, such as healthcare workers or first responders.

Despite the strengths of this study, several limitations should be acknowledged. The sample size was relatively small, which may limit the generalizability of the findings. Future research with larger, more diverse samples is needed to confirm the results. Additionally, the study relied on self-report measures, which can be subject to biases such as social desirability and recall bias. Incorporating objective measures, such as physiological indicators of anger or behavioral assessments of moral disengagement, can enhance the robustness of the findings.

The control group did not receive any form of intervention, which raises the possibility that observed effects may be partly due to placebo or attention effects. Including an active control group in future studies can help isolate the specific impact of the cognitive functioning workshops.

In conclusion, this study provides compelling evidence for the effectiveness of cognitive functioning workshops in reducing anger and moral disengagement. By integrating cognitive-behavioral techniques, mindfulness practices, and social skills training, these workshops offer a comprehensive approach to improving emotional regulation and ethical behavior. The significant and sustained reductions in anger and moral disengagement observed among participants highlight the potential of these interventions to enhance psychological well-being and promote ethical conduct.

The findings have important implications for mental health practice, supporting the incorporation of cognitive functioning workshops into therapeutic settings. Furthermore, the study underscores the value of a holistic approach to psychological interventions, addressing cognitive, emotional, and social dimensions of behavior. Future research should continue to explore the mechanisms, long-term effects, and applicability of these workshops across diverse populations, contributing to the development of effective strategies for managing anger and promoting ethical behavior.

By advancing our understanding of cognitive functioning workshops, this study contributes to the broader field of psychological interventions and provides valuable insights

for clinicians, researchers, and policymakers. The results affirm the importance of comprehensive, evidence-based approaches to mental health and underscore the potential for cognitive functioning workshops to make a meaningful impact on individuals' lives.

### Authors' Contributions

Authors contributed equally to this article.

### Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

### Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

### Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

### Declaration of Interest

The authors report no conflict of interest.

### Funding

According to the authors, this article has no financial support.

### Ethical Considerations

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

### References

- Abbasi Fashami, N., Akbari, B., & Hosseinkhanzadeh, A. A. (2020). Comparison of the Effectiveness of Cognitive Rehabilitation and Neurofeedback on Improving the Executive Functions in Children with Dyslexia [Research]. *Quarterly Journal of Child Mental Health*, 7(2), 294-311. <https://doi.org/10.29252/jcmh.7.2.25>
- Abdollah, O., Parvane Mohammad, K., Parviz, P., & Abbas, D. (2008). Efficacy of combined Cognitive Behavior Therapy and Mindfulness Based Cognitive Therapy in patients with Major Depressive Disorder. *Feyz*, 12(2), 9. <https://www.magiran.com/paper/588471>
- Ahmadi, H., & Moeini, M. (2015). An Investigation of the Relationship between Social Skills and High Risk Behaviors among the Youth: the Case of Shiraz City. *Strategic Research on Social Problems in Iran*, 4(1), 1-24. [https://ssoss.ui.ac.ir/article\\_17124\\_81b47fe0213cd900d0432b7e1106dfc8.pdf](https://ssoss.ui.ac.ir/article_17124_81b47fe0213cd900d0432b7e1106dfc8.pdf)
- Ahmadi, V., & Valizadeh, H. (2021). The Effectiveness of Acceptance and Commitment-Based Therapy on the Quality of Life and Death Anxiety in the Elderly. *Aging Psychology*, 7(2), 166-153. <https://doi.org/10.22126/jap.2021.6370.1528>
- Ahn, S.-N. (2018). Cognitive Rehabilitation of Adaptive Behavior in Children With Neurodevelopmental Disorders: A Meta-Analysis. *Occupational Therapy International*, 2018, 1-7. <https://doi.org/10.1155/2018/5029571>
- Ashori, M., & Tajvar Rostami, A. (2020). Effect of cognitive rehabilitation program based on memory on the working memory profile and prospective memory in hearing loss students [Research]. *Shenakht Journal of Psychology and Psychiatry*, 6(6), 40-54. <https://doi.org/10.29252/shenakht.6.6.40>
- Babaei, A., Vahedi, S., Imanzadeh, A., & Adib, Y. (2020). Effectiveness of Ethical Sensitivity Skill Training on Moral Disengagement and Bullying in Adolescent Girls. *Social Psychology Research*, 10(37), 123-139. <https://doi.org/10.22034/spr.2020.109700>
- Bandura, A. (1999). Moral Disengagement in the Perpetration of Inhumanities. *Personality and Social Psychology Review*, 3(3), 193-209. [https://doi.org/10.1207/s15327957pspr0303\\_3](https://doi.org/10.1207/s15327957pspr0303_3)
- Basharpoor, S., & Ahmadi, S. (2020). Predicting the tendency towards high-risk behaviors based on moral disengagement with the mediating role of difficulties in emotion regulation: A Structural Equation Modeling. *Journal of Research in Psychopathology*, 1(1), 32-39. <https://doi.org/10.22098/jrp.2020.1030>
- Bayrami, M., Hashemi, T., Esmailpour, K., Nemmati, F., & Khosheghbal, M. (2021). Evaluation of the Effectiveness of Cognitive Rehabilitation Focused on Working Memory in Improving Symptoms of Reading Disorder in Primary School Students. *Biquarterly Journal of Cognitive Strategies in Learning*, 9(17), 1-16. <https://doi.org/10.22084/jpsychology.2020.20065.2033>
- Burton, R., & O'Connell, M. E. (2018). Telehealth Rehabilitation for Cognitive Impairment: Randomized Controlled Feasibility Trial. *Jmir Research Protocols*, 7(2), e43. <https://doi.org/10.2196/resprot.9420>
- Choi, J., & Twamley, E. W. (2013). Cognitive Rehabilitation Therapies for Alzheimer's Disease: A Review of Methods to Improve Treatment Engagement and Self-Efficacy. *Neuropsychology Review*, 23(1), 48-62. <https://doi.org/10.1007/s11065-013-9227-4>
- Cross, D., Barnes, A., Papageorgiou, A., Hadwen, K., Hearn, L., & Lester, L. (2015). A social-ecological framework for understanding and reducing cyberbullying behaviours. *Aggression and Violent Behavior*, 23, 109-117. <https://doi.org/10.1016/j.avb.2015.05.016>
- Damavandian, A., Golshani, F., Saffarinia, M., & Baghdasarians, A. (2022). Effectiveness of compassion-focused therapy on aggression, self-harm behaviors, and emotional self-regulation in delinquent adolescents. *Journal-of-Psychological-Science*, 21(112), 797-818. <https://doi.org/10.52547/JPS.21.112.797>
- Detert, J. R., Treviño, L. K., & Sweitzer, V. L. (2008). Moral Disengagement in Ethical Decision Making: A Study of Antecedents and Outcomes. *Journal of Applied Psychology*, 93(2), 374-391. <https://doi.org/10.1037/0021-9010.93.2.374>
- Gini, G., Pozzoli, T., & Hymel, S. (2014). Moral disengagement among children and youth: A meta-analytic review of links to aggressive behavior. *Aggressive Behavior*, 40(1), 56-68. <https://doi.org/10.1002/ab.21502>



- Godarzi, S., & Khojaste, S. (2020). Religious beliefs and religiosity in divorced and non-divorced bank staffs. *International Journal of Education and Cognitive Sciences*, 1(3), 8-15. [https://iase-ijeas.com/article\\_161565.html](https://iase-ijeas.com/article_161565.html)
- Hasanvand, B., Sharifi Daramadi, P., Delavar, A., & Alaei, P. (2019). Effectiveness of Shame Management Training Program on Aggression and Social Skills of Children with Hearing Impairment [Applicable]. *Quarterly Journal of Child Mental Health*, 6(1), 149-162. <https://doi.org/10.29252/jcmh.6.1.13>
- Hood, M., & Duffy, A. L. (2018). Understanding the relationship between cyber-victimisation and cyber-bullying on Social Network Sites: The role of moderating factors. *Personality and individual differences*, 133, 103-108. <https://doi.org/10.1016/j.paid.2017.04.004>
- Jodaki, H., Sabet, M., & Ahadi, H. (2022). The Effectiveness of Mindfulness-Based Cognitive Therapy on Rumination and Fatigue in Patients with Cervical Cancer [Research]. *Iranian Journal of Rehabilitation Research in Nursing*, 8(2), 1-11. <https://doi.org/10.22034/ijrn.8.2.1>
- Keramati, M. R. (2021). A Comparison of Health-Related Quality of Life and Job Satisfaction in Physically Active and Sedentary Faculty Members. *International Journal of Education and Cognitive Sciences*, 2(3), 23-32. <https://doi.org/10.22034/injoeas.2021.160725>
- Kokkinos, C. M., Voulgaridou, I., Mandrali, M., & Parousidou, C. (2016). INTERACTIVE LINKS BETWEEN RELATIONAL AGGRESSION, THEORY OF MIND, AND MORAL DISENGAGEMENT AMONG EARLY ADOLESCENTS. *Psychology in the Schools*, 53(3), 253-269. <https://doi.org/10.1002/pits.21902>
- Leonard, K., & Abramovitch, A. (2019). Cognitive functions in young adults with generalized anxiety disorder. *European Psychiatry*, 56(1), 1-7. <https://doi.org/10.1016/j.eurpsy.2018.10.008>
- Li, G., Hu, Y., Zhang, W., Wang, J., Ji, W., Manza, P., Volkow, N. D., Zhang, Y., & Wang, G.-J. (2023). Brain functional and structural magnetic resonance imaging of obesity and weight loss interventions. *Molecular Psychiatry*, 28(4), 1466-1479. <https://doi.org/10.1038/s41380-023-02025-y>
- Loprinzi, P. D., & Kane, C. J. (2015). Exercise and Cognitive Function: A Randomized Controlled Trial Examining Acute Exercise and Free-Living Physical Activity and Sedentary Effects. *Mayo Clinic Proceedings*, 90(4), 450-460. <https://doi.org/10.1016/j.mayocp.2014.12.023>
- Mehraban, R., & Alivandivafa, M. (2022). Examining Aggression, Rumination and Self-Control under the Influence of Emotion Regulation Training and Mindfulness Training in Students with Low Academic Performance. *Journal of Adolescent and Youth Psychological Studies*, 3(3), 1-6. <http://dx.doi.org/10.52547/jspnay.3.3.1>
- Mimura, M., & Komatsu, S. I. (2007). Cognitive Rehabilitation and Cognitive Training for Mild Dementia. *Psychogeriatrics*, 7(3), 137-143. <https://doi.org/10.1111/j.1479-8301.2007.00212.x>
- Perozzo, P., Savi, L., Castelli, L., Valfrè, W., Giudice, R. L., Gentile, S., Rainero, I., & Pinessi, L. (2005). Anger and Emotional Distress in Patients With Migraine and Tension-type Headache. *The Journal of Headache and Pain*, 6(5), 392-399. <https://doi.org/10.1007/s10194-005-0240-8>
- Polat, H., & Asi Karakaş, S. (2021). The effect of acceptance and commitment therapy orientated anger management training on anger ruminations and impulsivity levels in forensic psychiatric patients: A randomized controlled trial. *Perspectives in psychiatric care*, 57(4), 1616-1627. <https://doi.org/10.1111/ppc.12726>
- Safikhani, F. (2022). The effectiveness of grammatical mental imagery with cognitive processing on self-efficacy, emotional processing and spirituality in mothers of students with autism spectrum disorder. *International Journal of Education and Cognitive Sciences*, 3(2), 12-22. <https://doi.org/10.22034/injoeas.2022.160609>
- Sari, F. S., Batubara, I. M. S., Solikhah, M. M., Kusumawati, H. N., Eagle, M., Sulisetyawati, S. D., & Mariyati, M. (2022). Effect of Cognitive Behavior-Anger Management Therapy on Aggressive Behavior in Adolescents. *Open Access Macedonian Journal of Medical Sciences*, 10(G), 275-278. <https://doi.org/10.3889/oamjms.2022.8496>
- Sedighi Arfaee, F., Rashidi, A., & Tabesh, R. (2021). The Distress Tolerance in the Elderly: The Role of Experiential Avoidance, Rumination and Mindfulness. *Aging Psychology*, 7(1), 12-11. <https://doi.org/10.22126/jap.2021.6108.1498>
- Seyedi, F., Fathi, M., Dadkhah, A., Kamal, S. H. M., & Rezasoltani, P. (2018). Effect of Cognitive Behavioral Therapy on Social Competence in Physically Disabled Adolescents. *Iranian Rehabilitation Journal*, 339-346. <https://doi.org/10.32598/irj.16.4.339>
- Shahmoradi, L., & Rezayi, S. (2022). Cognitive rehabilitation in people with autism spectrum disorder: a systematic review of emerging virtual reality-based approaches. *Journal of NeuroEngineering and Rehabilitation*, 19(1), 91. <https://doi.org/10.1186/s12984-022-01069-5>
- Shokoohi Yekta, M., & Motamed Yeganeh, N. (2024). Effects of Cognitive-Based Problem-Solving skills On Changing Parenting Styles and Reducing Parental Anger. *Applied Family Therapy Journal (AFTJ)*, 5(1), 26-35. <http://journals.kmanpub.com/index.php/aftj/article/view/1799>
- Shokoohi Yekta, M., Zamani, N., Parand, A., & Akbari Zardkhaneh, S. (2010). The effectiveness of anger management training on parents anger expression and control. 7(26), 137-146. [https://jip.stb.iau.ir/article\\_512292\\_01ccb860a534b7702e3f9d9de73cbbf4.pdf](https://jip.stb.iau.ir/article_512292_01ccb860a534b7702e3f9d9de73cbbf4.pdf)
- Solimannejad, H., Poursharifih, H., Mohammadzadeh, J., & Sayehmiri, K. (2019). The Effectiveness of Integrative Intervention in Frustration and Emotion Dysregulation as the Determinants of Suicidal Tendencies among Youths and Adolescents in Ilam. *Community Health Journal*, 13(3), 32-43. <https://doi.org/10.22123/chj.2020.195840.1330>
- Teng, Z., Bear, G. G., Yang, C., Nie, Q., & Guo, C. (2020). Moral disengagement and bullying perpetration: A longitudinal study of the moderating effect of school climate. *School Psychology*, 35(1), 99-109. <https://doi.org/10.1037/spq0000348>
- Tremblay, K. N., Richer, L., Lachance, L., & Côté, A. (2010). Psychopathological manifestations of children with intellectual disabilities according to their cognitive and adaptive behavior profile. *Research in Developmental Disabilities*, 31(1), 57-69. <https://doi.org/10.1016/j.ridd.2009.07.016>
- Trew, J. L., & Alden, L. E. (2009). Predicting anger in social anxiety: The mediating role of rumination. *Behaviour Research and Therapy*, 47(12), 1079-1084. <https://doi.org/10.1016/j.brat.2009.07.019>
- Visconti, K. J., Ladd, G. W., & Kochenderfer-Ladd, B. (2015). The role of moral disengagement in the associations between children's social goals and aggression. *Merrill-Palmer Quarterly*, 61(1), 101-123. <https://www.jstor.org/stable/10.13110/merrpalmquar1982.61.1.0101>

- Wang, X., Lei, L., Liu, D., & Hu, H. (2016). Moderating effects of moral reasoning and gender on the relation between moral disengagement and cyberbullying in adolescents. *Personality and individual differences*, 98, 244-249. <https://www.sciencedirect.com/science/article/pii/S0191886916303178>
- Wells, A., Reeves, D., Heal, C., Fisher, P., Doherty, P., Davies, L., Heagerty, A., & Capobianco, L. (2023). Metacognitive therapy home-based self-help for anxiety and depression in cardiovascular disease patients in the UK: A single-blind randomised controlled trial. *PLOS Medicine*, 20(1), e1004161. <https://doi.org/10.1371/journal.pmed.1004161>
- Zhan, J., Wu, X., Fan, J., Guo, J.-Y., Zhou, J., Ren, J., Liu, C., & Luo, J. (2017). Regulating Anger Under Stress via Cognitive Reappraisal and Sadness. *Frontiers in psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.01372>