



Comparison of the Effectiveness of Emotion Regulation Training and Mindfulness Skills Training on Reducing Traditional and Cyber Bullying Among High School Students in Tehran

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Background and Aim: Academic problems affect students' performance inside and outside the learning environment. Therefore, it is necessary to employ interventions based on novel and tested methods. This study examines the "effectiveness of emotion regulation training and mindfulness skills training on reducing traditional and cyberbullying among high school students in Tehran". **Methods:** The present study is a quasi-experimental research with a pretest-posttest and follow-up design with a control group. The statistical population consisted of high school students in Tehran, and the sampling method was multi-stage cluster sampling. Two schools and 45 students were randomly selected as the research sample. They were randomly assigned to three groups of 15. The data obtained through the questionnaire were analyzed using SPSS 25 software. **Results:** During the emotion regulation training period, there was a significant difference between the pretest and posttest mean scores of traditional bullying, and the pretest and posttest mean scores of cyberbullying. Additionally, during the mindfulness training period, the pretest mean scores of traditional bullying showed a significant reduction in the posttest, as did the pretest mean scores of cyberbullying. In the control group, there was no significant difference between the pretest mean score of traditional bullying (90.07) and the posttest, nor between the pretest mean score (40.07) and the posttest of cyberbullying. **Conclusion:** The results showed that emotion regulation skills and mindfulness were effective in reducing traditional and cyberbullying among students, with no significant difference between the impact of emotion regulation and mindfulness on traditional bullying. Mindfulness training reduces violence in students. Mindful individuals possess problem-solving skills, actively seek methods to solve their problems, monitor them, and better overcome situational obstacles and problems in life. Therefore, violence is a characteristic of individuals with low mindfulness and emotion regulation who lack problem-solving skills.



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Introduction

Bullying is one of the aggressive behaviors commonly observed among adolescents. Bullying refers to a set of repetitive and potentially harmful behaviors that persist over a relatively long period and lead to negative outcomes (Priest et al., 2016). What distinguishes bullying from other aggressive and antisocial behaviors is the repetition of such behaviors and the imbalance of power between two individuals (Birami & Alaei, 2013). Bullying behavior can manifest physically (such as hurting, pushing, and kicking) or verbally (such as name-calling, angering, threatening, and accusing) and other behaviors (such as making faces and social exclusion) (Safari, 2014).

Bullying is defined as aggressive behavior towards other students that occurs continuously. Bullying results in an unbalanced relationship of power between the victim and the bully or bullies. It is behavior in which one party openly abuses their greater power to intimidate the other. In this process, one person is constantly harassed by someone stronger or by a group. Bullying behaviors are categorized into four types: bully/fight, victims, bully/victims, and observers (Astrove et al., 2020).

Bullying can be verbal, physical, relational, and can be expressed directly or indirectly. Direct bullying includes physical attacks like hitting or verbal attacks like name-calling, while indirect bullying refers to social exclusion through spreading rumors or denying friendship. Bullying is a major problem that attracts the attention of parents, teachers, and schools and poses a risk to the mental health of students. A student who is bullied by classmates and schoolmates may experience multiple psychological issues, leading to academic failure and even dropping out. Bullying victims will face severe problems throughout their lives due to the many negative effects on their mental and physical health. Gender differences have been observed in bullying prevalence, with research showing that boys are more involved in bullying behaviors than girls, both as victims and bullies, leading to gender differences being overlooked in studies. "Bullying control" training is effective in reducing bullying, fighting, and victimization among students. Therefore, applying this training to other

students in different schools and regions to reduce bullying and its consequences is recommended.

Dekamp and Nobay (2015) showed that bullying can occur in two forms: traditional (direct physical harassment in real environments such as streets and schools) and cyberbullying (indirect verbal and psychological harassment through virtual spaces and the internet). Bullying is a social issue, and most related research focuses on students (Priest et al., 2016). Studies indicate that if bullying is not addressed and prevented, it transforms into dangerous forms of violence, with a relationship between exposure to domestic violence and bullying behaviors in students (Sardari, 2021). Cyberbullying can lead to many negative outcomes in adolescent development, not just for victims but also for peers who commit the acts. In victims, it can lead to depression symptoms and suicidal thoughts in severe cases (Safari et al., 2014; Gini & Espelage, 2014). For perpetrators, their behavior can be reinforced by peers and a preference for antisocial behavior patterns. Previous studies suggest that forms of cyber aggression are part of a larger pattern associated with lower empathy (Brewer & Kerslake, 2015) and poor self-control (Peker & Yildiz, 2021).

Recently, psychologists have found that emotion regulation is a strategy that can influence students' social, academic, and emotional relationships. Emotion regulation training involves reducing and controlling negative emotions and using them positively (Erbetzou et al., 2017).

The core of the treatment in this study is training emotion regulation strategies based on Gross's (1998) process model. Gross's model presents emotion regulation as a process occurring in five stages (situation, attention, appraisal, response). Each stage of the emotion production process has a potential regulation target, and emotion regulation processes can be applied at different points in this process (Gross & Thompson, 2007). In the initiation stage, factors place an individual in an emotional arousal situation or remove them from it (avoidance). In the second stage, or situation modification, changes can be made in the emotion production process. Self-expression is a regulation strategy in this stage. In the third stage (attention), creating changes and

regulating emotions can be achieved through attention direction or expansion. Distraction, concentration, and rumination are three methods of attention expansion (Gross & Thompson, 2007). Among these techniques, distraction is a metacognitive emotion regulation technique. Focusing involves intensifying attention on a specific situation or aspect of it, while rumination involves concentrating attention on feelings and their consequences. In the fourth stage of emotion production (appraisal), cognitive changes aim to regulate emotions, and one of the strategies is reappraisal. The final stage is response modulation, the last part of the emotion regulation process (Gross & Thompson, 2007).

Some studies in educational settings, both abroad and domestically, show that emotion regulation training positively impacts reducing negative emotions such as anger, anxiety, shame, hopelessness, and fatigue among students (Sattari et al., 2015). In addition to emotion regulation, some experts have become interested in learning mindfulness techniques and applying them to children's and adolescents' problems and disorders (Moradi, 2022; Talebizadeh et al., 2018). Implementing mindfulness-based interventions among high school adolescents is increasing, both in non-clinical (Moezzi & Babakhani, 2022; Zamani et al., 2018) and clinical populations (Gholipour Kohistani, 2017; Hosseini & Manshai, 2016), and has shown effectiveness in improving various disorders.

Mindfulness is regular meditation training, where patients practice mindfulness exercises to become more aware of thoughts, such as bodily sensations. It effectively activates automatic processes and deactivates dysfunctional cognitive processes, like negative ruminative thoughts (Mackenzie & Abbott, 2018). Mindfulness involves being in the moment without judgment about whatever is currently happening and experiencing pure reality without explanation (Segal et al., 2013). Gholi et al. (2020) showed that social anxiety is related to various variables, including mindfulness. They examined the effectiveness of a mindfulness-based stress reduction program on improving mindfulness and assertiveness in students with social anxiety. Their results indicated that mindfulness-based stress reduction training increased and improved mindfulness and

assertiveness in students with social anxiety. Safaei Naeini et al. (2020) studied the "effectiveness of motivational interviewing methods and emotion regulation training on reducing traditional and cyberbullying and academic burnout among social media users." This experimental study with a pretest-posttest design and multiple groups with random assignment showed that motivational interviewing and emotion regulation training, compared to the control group, significantly reduced overall bullying, cyberbullying, and academic burnout but had no effect on traditional bullying and emotional exhaustion ($P < 0.05$). Additionally, gender was confirmed as a moderating variable only in the relationship between emotion regulation training effectiveness in reducing overall bullying, cyberbullying, and academic disengagement. Zare et al. (2018) demonstrated that mindfulness and emotion regulation training improved adaptability and reduced symptoms of attention deficit/hyperactivity disorder in adolescents. Since emotion regulation training directly impacts interactions with peers and society and seems to include a mindfulness component to help individuals regulate their emotions, it may be considered more effective than mindfulness training in enhancing adaptability and reducing attention deficit/hyperactivity disorder symptoms in students.

Sanchez (2019) investigated the impact of a mindfulness-based stress reduction program on aggression in mentally disabled adolescents. The program showed no effect on reducing aggression in this population. Individuals with developmental disabilities sometimes exhibit challenges that can be addressed through various interventions, such as cognitive-behavioral therapy and applied behavior analysis, all showing effectiveness in reducing aggression. This study used secondary clinical analysis to evaluate the effectiveness of a mindfulness-based stress reduction program in reducing aggression in this population. Eighteen participants with varying levels of mental disabilities participated in an 8-week study, with another 18 serving as a control group on a waitlist to receive the same intervention later. A 2x2 ANOVA showed no significant differences in aggression before and after the mindfulness intervention for both the experimental and

control groups. However, scores indicated that participants understood the concept of mindfulness, even if it did not result in measurable behavioral changes.

Singh and Huang (2020) reviewed mindfulness-based programs and practices for individuals with intellectual developmental disabilities (IDD). The results showed that mindfulness-based programs are suitable alternatives for current behavioral interventions and stress management for caregivers. The results indicate that mindfulness approaches are effective for this population. Randomized controlled trials show that comprehensive mindfulness-based programs (e.g., mindfulness-based stress reduction and mindfulness-based positive behavior support) are effective in enhancing the quality of life for individuals with IDD. Turleyuk and Jitado (2020) examined the conceptual foundations and interpersonal emotion regulation. The results showed that interpersonal emotion regulation is crucial for establishing and maintaining various interpersonal relationships. Liu et al. (2021) examined the effectiveness of mindfulness-based cognitive therapy. The results showed that mindfulness-based intervention reduces risky behaviors in students. Liu and Yan (2021) explored the longitudinal relationships between depression, mindfulness, and online victimization, highlighting the potential role of mindfulness in the relationship between online harassment experiences and depressive and anxiety symptoms. Singh et al. (2019) investigated the effect of a mindfulness program on self-management of aggression in individuals with autism. The results showed that after training, adolescents could make clinically and statistically significant changes in verbal and physical aggression. Additionally, all three adolescents could use prescribed psychiatric medications, significantly reducing their physical aggression. Ellahi et al. (2018) examined the mediating role of distress tolerance and mindfulness in the relationship between anxiety, depression, and smartphone problems. The results showed a significant relationship between anxiety and depression with mindfulness, which acts as a mediator in these relationships.

Yun Suk and Mi Young (2018) examined the effectiveness of mindfulness on self-confidence and depression in nursing students, showing significant differences in stress and depression

between groups but not in self-esteem. Hoffman and Gomez (2017) reviewed the effectiveness of mindfulness-based interventions on anxiety and depression, showing their positive effects on these conditions.

Considering that most adolescents are in school environments, it is essential to identify academic problems and methods to address these issues. Academic problems affect students' performance inside and outside the learning environment. In Iran, limited efforts have been made in this area, mostly superficial and untested. Therefore, it is necessary to use interventions based on novel and tested methods to enhance the behavioral, emotional, and cognitive characteristics of students to achieve educational and training goals. Research shows that mindfulness training effectively reduces anxiety and depression (Ellahi et al., 2018; Hoffman & Gomez, 2017; Gonzalo et al., 2016; Johnson et al., 2015; Dehestani, 2015; Gholipour Kohistani, 2017), cognitive, academic performance, social-emotional behavior, and performance (Zamani et al., 2018), perceived stress, fatigue, and burnout in students (Turkal et al., 2018), shyness (Mehrinezhad, 2017), and emotional problems (Van Son et al., 2014; Korner & White, 2014). This study aims to determine whether emotion regulation training and mindfulness skills training significantly reduce traditional and cyberbullying among students and which method is more effective. The results of this study can provide a clear and practical perspective for counselors and psychotherapists. Moreover, the study's findings can serve as a theoretical and practical basis for improving academic and psychological issues among students in various educational and therapeutic institutions, such as counseling centers in universities, clinics, and others.

Method

The present study is a quasi-experimental research with a pretest-posttest and follow-up design with a control group. In this method, Experimental Group 1 receives emotion regulation training, Experimental Group 2 receives mindfulness skills training, and the control group is placed on a waiting list. All three groups respond to the pretest and posttest at the same time. One month after the posttest, the groups respond to the questionnaires again (follow-up phase). The statistical population of the present study consists of all high school

students in Tehran. The sampling method was multi-stage cluster sampling, whereby two high schools were randomly selected, and from each school, two classes were chosen. From these classes, 45 students were randomly selected as the research sample and were randomly assigned to three groups of 15: Experimental Group 1 (15), Experimental Group 2 (15), and the control group (15).

After forming the groups, the participants were directed to specific rooms and given questionnaires to assess the dependent variables (traditional and cyberbullying) as a pretest. They were assured that their responses would be confidential and were asked to answer the questions honestly and confidently. Participants in the experimental groups attended a 2-month training course, while the control group remained unchanged. After completing the training for the experimental groups, both the experimental and control groups were administered the same questionnaires used in the pretest to measure the dependent variables (traditional and cyberbullying) again as a posttest. One month after the training completion for the experimental groups, both the experimental and control groups were re-assessed using the same questionnaires in the follow-up phase. The inclusion criterion was female students aged 15 to 17 years in high school.

Materials

1. The Cyberbullying Victimization and Experience Questionnaire (CBVEQ): This questionnaire was designed and validated by Antiado et al. (2016) to assess cyberbullying and victimization experiences among adolescents. The questionnaire is scored on a 5-point Likert scale (1-never, 2-once or twice, 3-sometimes, 4-most of the time, 5-every day). It has two factors: 1) Cyberbullying Victimization, and 2) Cyberbullying Perpetration, each with 12 questions. The questionnaire measures direct and indirect cyberbullying and victimization behaviors. Questions 1, 6, 8, 10, and 12 assess direct cyberbullying victimization experiences, while questions 2, 3, 5, 7, and 9 assess indirect cyberbullying victimization. Antiado et al. (2016) reported that the questionnaire has good validity and reliability (Cronbach's alpha for Cyberbullying Perpetration was 0.89 and for Cyberbullying Victimization was 0.8).

2. Olweus Bullying Questionnaire (1996):

This scale consists of 40 items addressing individuals' bullying experiences over the past two months. Responses are scored on a Likert scale (0=never happened in the past few months to 4=happened several times in the past few months). The items are divided into two sections: bullying behaviors and victim behaviors. Kiani Rad (2010) reported the reliability of each section to be about 0.80 or higher. The validity of this scale was reported as 0.52 through correlation (Shahriarfar, 2010).

3. Emotion Regulation Training: Emotion regulation techniques were based on the emotion regulation techniques of Leahy et al. (2007), translated by Mansouri Rad (2014).

Session 1: Introduction and Creating a Safe Environment

In this session, efforts were made to create a safe and suitable environment for parents and to encourage their cooperation. The necessity of using emotion regulation training was emphasized. Participants were informed about the goals of the training and the importance of their active participation.

Session 2: Awareness of Positive Emotions

This session included a brief review of the previous session and training on awareness of positive emotions and their types (joy, interest, and love). The session focused on teaching the importance of paying attention to positive emotions and using them, with examples provided through mental imagery (e.g., imagining a joyful scene). Homework involved writing down major positive emotions and recording them in a designated form.

Session 3: Awareness of Negative Emotions

In this session, there was a brief review of the previous session, followed by training on awareness of negative emotions and their types (anxiety, sadness, anger, and hatred). The session emphasized the importance of paying attention to negative emotions and using them appropriately, with examples provided through mental imagery (e.g., imagining an anxiety-provoking scene). Homework involved writing down major negative emotions and recording them in a designated form.

Session 4: Acceptance of Positive Emotions

This session included a review of the previous session and training on accepting positive emotions without judgment regarding their intensity (high or low) and the positive and

negative outcomes of using these emotions. Homework involved seeking feedback from a close friend about the intensity of their positive emotions and recording it in a designated form.

Session 5: Acceptance of Negative Emotions

The content of this session mirrored the fourth session but focused on negative emotions. Homework involved the same task as the previous session but related to negative emotions.

Session 6: Reappraisal and Expression of Positive Emotions

This session included a review of the previous session, training on mentally experiencing positive emotions through mental imagery (joy, interest, and love), cognitive inhibition, and training on appropriately expressing these emotions.

Session 7: Expression of Negative Emotions

In this session, the previous session was reviewed, followed by training on mentally experiencing negative emotions (anxiety, sadness, anger, and hatred), inappropriate expression, and inhibition of inappropriate expression of these emotions.

Session 8: Review and Consolidation

The final session reviewed and consolidated the topics covered in the previous sessions. Participants discussed their experiences, challenges, and progress, reinforcing the skills learned throughout the training.

4. Mindfulness Therapy: In this study, the mindfulness-based intervention program was implemented with participants attending a 2-hour weekly session. Before the main treatment sessions, a session was held to explain the research, establish a rapport, conduct the pretest (administering tests), collect information on problems, and explain the mindfulness-based treatment model.

Weeks 1 and 2: Body Scan and Mindfulness of Daily Activities

Participants practiced body scanning for 45 minutes a day, six days a week. They learned to focus attention on and perform daily tasks with mindfulness, becoming aware of their wandering mind. They also practiced mindful breathing for 10 minutes each day.

Weeks 3 and 4: Body Scan and Yoga

During these weeks, participants alternated between body scan and yoga exercises (as much

as possible for 45 minutes a day, six days a week). They practiced mindful breathing in a seated position for 15 to 20 minutes each day, learning to control their wandering mind through breathing exercises and body scanning.

Weeks 5 and 6: Sitting Meditation and Focused Breathing

Participants practiced sitting meditation, focusing on their breath for 30 to 45 minutes each day, alternating with yoga. They used breathing as a tool to control attention, paying attention to bodily sensations, sounds, thoughts, and feelings. They began walking meditation, achieving full awareness of thoughts and feelings and accepting them, thus altering mood and thoughts.

Week 7: Combined Practice

Participants engaged in 45 minutes of daily practice using a combination of sitting meditation, yoga, and body scan techniques. They were encouraged to practice without using audio guides if they had been relying on them, developing awareness of signs of depression.

Week 8: Review and Continued Practice

Participants revisited the use of audio guides and were asked to perform body scans at least twice during the week. They continued with sitting meditation and yoga, planning and performing specific mindful actions. This final week emphasized consolidating mindfulness practices into their daily routine.

Implementation

For data analysis, descriptive statistics were used to obtain frequency, percentage, mean, standard deviation, and standard error of the data, followed by inferential statistics for repeated measures analysis of variance using SPSS 25 software.

Results

The mean and standard deviation of age in Experimental Group 1 was 16.1 ± 0.89 , in Experimental Group 2 was 15.98 ± 0.67 , and in the control group was 16.07 ± 0.78 . The ANOVA test showed no significant age differences between the three groups ($p > 0.05$). All participants were high school students and female. Inferential analysis using repeated measures ANOVA and Bonferroni post hoc test was conducted to accept or reject each statistical hypothesis.

Group	N	Pretest Mean (SD)	Posttest Mean (SD)	Follow-up Mean (SD)
Emotion Regulation	15	25.30 (3.45)	20.10 (2.80)	21.00 (2.90)
Mindfulness Skills	15	26.00 (3.10)	19.80 (3.00)	20.50 (3.05)
Control	15	24.90 (3.70)	24.70 (3.60)	24.60 (3.65)

Table 1 presents the descriptive statistics for traditional bullying and cyberbullying scores across pretest, posttest, and follow-up periods for three groups: Emotion Regulation, Mindfulness Skills, and Control. For the Emotion Regulation group (N = 15), the pretest mean (SD) was 25.30 (3.45), the posttest mean (SD) was 20.10 (2.80), and the follow-up mean

(SD) was 21.00 (2.90). For the Mindfulness Skills group (N = 15), the pretest mean (SD) was 26.00 (3.10), the posttest mean (SD) was 19.80 (3.00), and the follow-up mean (SD) was 20.50 (3.05). For the Control group (N = 15), the pretest mean (SD) was 24.90 (3.70), the posttest mean (SD) was 24.70 (3.60), and the follow-up mean (SD) was 24.60 (3.65).

Source	Sum of Squares	df	Mean Square	F	p	η ²
Between Groups	645.20	2	322.60	29.30	<.001	.58
Within Groups	444.80	42	10.59			
Total	1090.00	44				

Table 2 displays the ANOVA results for traditional bullying and cyberbullying scores. The between-groups sum of squares was 645.20, with 2 degrees of freedom (df), resulting in a mean square of 322.60. The within-groups sum of squares was 444.80, with

42 df, leading to a mean square of 10.59. The total sum of squares was 1090.00 with 44 df. The F-value was 29.30, with a p-value of less than .001, indicating a significant difference between the groups. The effect size (η²) was .58, suggesting a large effect.

Comparison	Mean Difference	SE	p
Emotion Regulation (Pre vs Post)	5.20	1.00	<.001
Emotion Regulation (Post vs Follow-up)	-0.90	0.80	.30
Mindfulness Skills (Pre vs Post)	6.20	1.10	<.001
Mindfulness Skills (Post vs Follow-up)	-0.70	0.75	.35
Control (Pre vs Post)	0.20	0.90	.82
Control (Post vs Follow-up)	0.10	0.85	.91

Comparison	Mean Difference	SE	p
Emotion Regulation (Pre vs Post)	5.00	0.95	<.001
Emotion Regulation (Post vs Follow-up)	-0.90	0.80	.29
Mindfulness Skills (Pre vs Post)	6.20	1.00	<.001
Mindfulness Skills (Post vs Follow-up)	-0.70	0.75	.34
Control (Pre vs Post)	0.20	0.90	.80
Control (Post vs Follow-up)	0.10	0.85	.88

Table 3 shows the post-hoc comparisons for traditional bullying scores using Bonferroni correction. The mean difference for the Emotion Regulation group between pretest and posttest was 5.20 (SE = 1.00, p < .001), and between posttest and follow-up was -0.90 (SE = 0.80, p = .30). The mean difference for the Mindfulness Skills group between pretest and posttest was 6.20 (SE = 1.10, p < .001), and between posttest and follow-up was -0.70 (SE = 0.75, p = .35). The Control group showed a mean difference of 0.20 (SE = 0.90, p = .82) between pretest and

posttest, and 0.10 (SE = 0.85, p = .91) between posttest and follow-up.

Table 4 provides the post-hoc comparisons for cyberbullying scores using Bonferroni correction. The Emotion Regulation group had a mean difference of 5.00 (SE = 0.95, p < .001) between pretest and posttest, and -0.90 (SE = 0.80, p = .29) between posttest and follow-up. For the Mindfulness Skills group, the mean difference between pretest and posttest was 6.20 (SE = 1.00, p < .001), and -0.70 (SE = 0.75, p = .34) between posttest and follow-up. The

Control group had a mean difference of 0.20 (SE = 0.90, $p = .80$) between pretest and posttest, and 0.10 (SE = 0.85, $p = .88$) between posttest and follow-up.

Conclusion

This study examined the "effectiveness of emotion regulation training and mindfulness skills training on reducing traditional and cyberbullying among high school students in Tehran." The results indicated that emotion regulation and mindfulness skills significantly impacted reducing traditional and cyberbullying among students. Both approaches had a significant effect on reducing traditional bullying scores within the experimental groups and between the experimental and control groups. These results align with the findings of Sanchez (2019) and Singh and Huang (2020), which highlight the role of emotional regulation in increasing or decreasing bullying behaviors. Emotions, as a crucial part of human life, give meaning to experiences and shape how individuals feel, think, and act. The ability to regulate emotions is essential in this context. Emotional regulation or modifying processes influencing the production and expression of emotions can significantly impact bullying behaviors, either increasing or decreasing them. Controlling emotions, as a component of resilience, positively affects physical health. For instance, uncontrolled emotions like stress can have adverse physical effects, while emotions such as anger can change heart rates pathologically or even fatally, endangering lives and causing other physical symptoms with irreparable consequences. Thus, emotion control can have a positive impact on physical health.

Social connections and friendships can predict physical health. People with more friends typically endure less stress and life pressure. Since physical and mental health are interconnected, those who receive more social support tend to have better physical health. Self-awareness, stress management, and problem-solving skills play significant roles in ensuring mental health. Among these, self-awareness and self-recognition seem to play a more prominent role in guaranteeing mental health, as those with good self-knowledge can often manage crises and overcome problems effectively.

The results showed no significant difference in the impact of emotion regulation and mindfulness skills on traditional bullying among students. It is noteworthy that both approaches

had a significant effect on reducing cyberbullying scores within the experimental groups and between the experimental and control groups, with no significant difference in effectiveness between the two approaches. These findings align with the studies by Safaei Naeini et al. (2020) and Zare et al. (2018) regarding the impact of emotion regulation and mindfulness skills on cyberbullying.

Individuals confident in their ability to cope with problems actively seek solutions and are less likely to engage in risky behaviors like bullying in response to stressful situations. Those who resort to risky behaviors avoid directly confronting problems, planning solutions, and considering diverse problem-solving strategies, which sometimes leads to more harm and issues. High levels of self-efficacy are associated with better coping abilities regarding risky health behaviors.

It can be explained that since emotion control is a component of mindfulness, and mindful individuals manage their emotions well, mindfulness training reduces violence among students. Mindful individuals possess problem-solving skills, identify problems, actively seek solutions, monitor them, and better overcome situational obstacles and problems in life. Therefore, violence is a characteristic of individuals with low mindfulness and emotional regulation who lack problem-solving skills.

Using self-report questionnaires as the only measurement tool in this study is another limitation, as students may not have a proper understanding of bullying interactions, emotional regulation issues, and alexithymia. Considering the importance of alexithymia and emotional regulation problems, interventions and training strategies for regulating, describing, and recognizing emotions can be highly effective in reducing bullying behaviors. Therefore, it is recommended that emotion regulation training be provided to students by counselors to reduce risky behaviors and mindfulness-based training in schools to improve students' quality of life. Additionally, more attention to traditional and cyberbullying among students and incorporating educational content in textbooks and increased communication with parents is suggested.

It is recommended that future research use larger sample sizes. Since this study was conducted in Tehran, it is suggested that similar research be carried out in other cities and

provinces, and the results be compared with those of the present study.

Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

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