

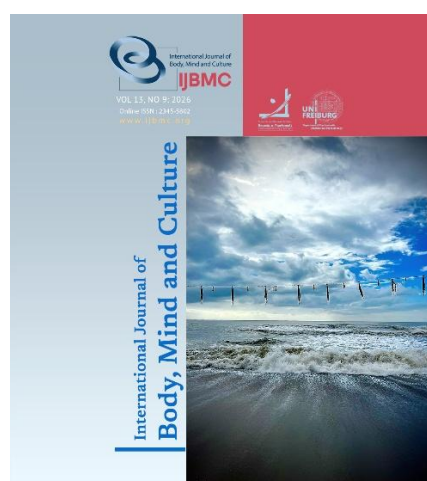
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Comparing the Effectiveness of Mindfulness Training and Quality of Life Therapy Techniques Training on Happiness, Cognitive Emotion Regulation, and Psychological Capital

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ABSTRACT

Objective: The present study aimed to compare the effectiveness of mindfulness training and training in quality of life therapy techniques on students' happiness, cognitive emotion regulation, and psychological capital.

Methods and Materials: This was a quasi-experimental study with a pretest–posttest design and a two-month follow-up, including a control group. The statistical population comprised all undergraduate psychology students at Islamic Azad University, South Tehran Branch. The research sample consisted of 45 students selected via purposive sampling and randomly assigned to two experimental groups and one control group. Data were collected using the Oxford Happiness Questionnaire (1987), the Cognitive Emotion Regulation Questionnaire by Garnefski et al. (2002), and the Psychological Capital Questionnaire by Luthans et al. (2016). The mindfulness training and the training in quality of life therapy techniques were each delivered over eight weekly 90-minute sessions; the control group received no intervention. Data were analyzed using a mixed design with repeated measures in SPSS-26.

Findings: The findings indicated that mindfulness training and training in quality of life therapy techniques were effective in improving students' happiness, cognitive emotion regulation, and psychological capital ($P < 0.05$). The results also showed a significant difference between the effectiveness of the two interventions on happiness, cognitive emotion regulation, and psychological capital.

Conclusion: It is concluded that mindfulness training and training in quality of life therapy techniques can be used to enhance happiness, cognitive emotion regulation, and psychological capital.

Keywords: Mindfulness Training, Quality Of Life Therapy, Happiness, Cognitive Emotion Regulation, Psychological Capital.



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Introduction

Appropriate training in the field of positive psychology, alongside the dynamic and eager minds of young people, leads to success. Therefore, supporting students' mental health and increasing academic vitality is a very important matter that requires attention and sufficient education. Today, the tendency toward positive-psychology interventions such as mindfulness and quality-of-life therapy has increased due to rising rates of suicide, depression, anxiety, and aggressive behaviors in schools and universities (Yosep et al., 2024).

Positive psychology, with happiness and improvement of quality of life as its primary aim, has its roots in the work of Seligman (2002). The goal of positive psychology is flourishing and fulfillment, and understanding human beings as members of society. At the mental level, positive psychology addresses valuable subjective experiences such as well-being, contentment, and satisfaction (regarding the past), hope and optimism (regarding the future), and flow and happiness (in the present). At the individual level, it emphasizes positive personal traits such as the capacity for work and love, courage, interpersonal skills, perseverance, forgiveness, gratitude, wisdom, and so on; and at the group level, it guides people toward human virtues such as responsibility, altruism, and tolerance (He et al., 2023).

One of the newer positive-psychology approaches developed by Frisch (2016) is Quality of Life Therapy (QOLT). Quality of life therapy seeks to increase human happiness and fulfillment by discovering abilities and ultimately improving quality of life (Khan et al., 2024).

Quality of life therapy is a comprehensive approach that emphasizes values and striving for fulfillment. It also teaches strategies to help clients identify, select, and meet needs, goals, and desires in the valued and important domains of their lives (Younis et al., 2024). When needs, goals, or aspirations are identified, pursued, and fulfilled in daily life, a sense of satisfaction ensues, and then emotionally the person attains a feeling of happiness (Owen et al., 2024). Researchers believe that happiness either increases through changing general beliefs and attitudes or is achieved by increasing the number of pleasant activities in life. Theorists such as Maslow also consider the foundation of happiness to be attaining ultimate goals or fulfilling needs (Gomez et al., 2024).

Interventions related to quality of life therapy are applicable both for clinical groups and for non-clinical individuals. They can be used by all professionals in mental health as well as specialists who employ human-service interventions, and they are used in both therapeutic and educational contexts. In fact, the target groups are those who wish to experience higher levels of well-being, mental health, and overall quality of life (Kim, 2024).

Quality of life therapy effectively supports the latest research and theories on happiness, positive psychology, and life satisfaction (our subjective evaluation of the extent to which our most important needs, goals, and wishes are met). The valued and important domains emphasized in this approach include physical health, self-esteem, goals and values, work, money, play, learning, creativity, helping others, love, friends, children, relatives, home and neighborhood, community, spouse, and overall life. The aim of this method is to increase professional self-care or inner enrichment and to prevent burnout (Orban et al., 2024).

Another set of interventions and techniques that can be taught within modern positive psychology is mindfulness. In this method, by focusing on the present moment—without ruminating about the past or worrying about the future—and by approaching life stresses that lead to anxiety and depression in a constructive way, one responds more positively (Tsien et al., 2024). By combining well-being with acceptance of experiences and events, and through the changes it produces in positive emotional states, mindfulness affects happiness and subjective well-being (Zia et al., 2024).

Happiness is a concept that has had important and beneficial effects on human individual and social life, as it leads people to always observe the positive aspects of their lives, which in turn impacts mental health. Happiness is an important component of quality of life and ranks above wealth (Choi, 2024). The feeling of happiness, as a positive emotional phenomenon, is essential for humans and gives meaning to life. Positive emotions broaden the scope of attention and consequently increase mindfulness of bodily and environmental conditions. Research shows that happy individuals, by using more effective strategies, make more effective decisions in life, which leads to greater quality of life (Zhu et al., 2008).

According to studies in positive psychology, another factor that influences quality of life is cognitive emotion regulation (Bahrami et al., 2015). Cognitive emotion regulation refers to the cognitive management and manipulation of emotionally evocative information as it is processed. When facing stressful events, people use different emotion-regulation strategies to modify or adjust their emotional experiences (Zitzmann et al., 2024). The strategies people use to regulate emotion have been extensively examined in theoretical and applied research and are discussed as adaptive versus maladaptive strategies (Messina et al., 2024). Cognitive emotion regulation helps individuals regulate their emotions and feelings and prevents them from being overwhelmed by the intensity of emotions (Aldrup et al., 2024).

In this vein, Gamefski & Kraaij (2006) introduced nine different cognitive emotion regulation strategies: self-blame, acceptance, rumination, positive refocusing, refocus on planning, positive reappraisal, putting into perspective, catastrophizing, and other-blame. Among these, other-blame, rumination, and catastrophizing are maladaptive strategies of cognitive emotion regulation, while acceptance, refocus on planning, positive refocusing, positive reappraisal, and putting into perspective constitute adaptive cognitive emotion regulation strategies (Tan et al., 2024).

Another construct used in the positive psychology movement is psychological capital, which examines increasing adaptation to the demands and threats of life. Psychological capital has gained a special place in developmental psychology, family psychology, and mental health (Ren et al., 2024). One way to prevent the emergence of psychological and behavioral problems is to enhance individuals' psychological capital. Higher psychological capital enables a person to maintain life at a desirable psychological level and manifests as adaptive behavior and positive, effective action. The greater this capital, the more capable the person will be of maintaining mental and behavioral health and addressing problems positively, adaptively, and efficiently (Gupta et al., 2025). Individuals' psychological capital is of great importance for promoting psychological well-being across the physical, mental, and social domains (Song & Song, 2024). Adequate psychological capital, as a form of mindful capacity, can also help students adopt positive behaviors toward

learning and ultimately achieve academic progress (Wang, 2024).

One of the key reasons for students' success or failure in academic adjustment is their psychological capital; in fact, students who are more hopeful, more optimistic, more resilient, and who possess higher self-efficacy and well-being show greater flexibility in adapting to university life (Iqbal et al., 2025). Since psychological capital is considered a positive psychological state of development—defined as one's belief in one's ability to achieve success, persistence in pursuing goals, making positive attributions about oneself, and withstanding difficulties—it can, to a considerable extent, be used to address students' everyday problems. Individuals with high psychological capital are more resistant to stress and, when exposed to stress, are better able to maintain psychological and physical well-being and happiness. When hope, self-efficacy, resilience, and optimism are integrated within the central construct of psychological capital, they form a stable combination of resources and mechanisms that enhance psychological well-being (Sigal & Michoń, 2024).

Given the above, we conclude that modern positive-psychology methods such as mindfulness and quality of life therapy are effective for the components of happiness, cognitive emotion regulation, and psychological capital. In this study, we aim to teach mindfulness and quality of life therapy to students and, by comparing the results obtained, determine which has a greater impact on happiness, cognitive emotion regulation, and psychological capital.

Methods and Materials

Study Design

This study employed a quasi-experimental design with pretest, posttest, control, and follow-up. The statistical population comprised all undergraduate psychology students at Islamic Azad University, South Tehran Branch, in the 2023–2024 academic year. From this population, 45 students were selected by non-random convenience sampling (based on the Powe G3 sample-size software, with parameters: effect size = 0.36; alpha = 0.05; test power = 0.95). The sample size for each of the experimental and control groups was set at 15, yielding a total of 45 participants who were randomly assigned to two 15-member experimental

groups and one 15-member control group. Inclusion criteria were age 18–25 years, being an undergraduate psychology student, having received no psychological treatments in the past three months, and absence of serious physical illness. Exclusion criteria were unwillingness to continue participation and absence from more than two therapy sessions.

Instruments

Oxford Happiness Questionnaire (OHQ). This questionnaire was developed by Argyle (2013) based on the Beck Depression Inventory (Beck et al. 1996) to measure individual happiness. It contains 29 four-option items, scored from 0 (option A) to 3 (option D). Thus, the highest possible score is 87, indicating the highest level of happiness, and the lowest score indicates dissatisfaction with life and depression. Divergent validity with the Beck Depression Inventory has been reported at $r = -0.69$. Internal consistency (Cronbach's alpha) has been reported at 0.78 (Argyle, 2013). In an Iranian sample, Alipour & Agah Heris (2007) examined validity using exploratory factor analysis; results indicated five factors—life satisfaction, self-esteem, subjective well-being, contentment, and positive affect—which explained 68% of the variance; Cronbach's alpha for the full scale was 0.91 (Jahanbakhsh et al., 2025). In the present study, Cronbach's alpha was 0.874.

Cognitive Emotion Regulation Questionnaire (CERQ). This questionnaire is based on the original cognitive emotion regulation instrument and was developed by Garnefski & Kraaij (2006) in the Netherlands. It is a multidimensional, self-report questionnaire used to identify individuals' cognitive coping strategies after experiencing negative events or situations. It contains 18 items and nine subscales. These subscales assess nine cognitive strategies: self-blame, other-blame, rumination, catastrophizing, putting into clearer and more realistic perspective, positive refocusing, positive reappraisal, acceptance, and planning. Responses range from 1 (almost never) to 5 (almost always). Each subscale has two items; the subscale score is the sum of its two items, yielding a range of 2–10. Higher scores on

a subscale indicate greater use of that strategy when facing stressful and negative events Garnefski & Kraaij (2006). In Garnefski & Kraaij (2006), Cronbach's alpha across the nine subscales ranged from 0.62 to 0.80. Zhu et al. (2008) reported content validity of 0.89. In Iran, Hasani (2014) examined validity via inter-subscale correlations, which ranged from 0.73 to 0.88, and reliability via Cronbach's alpha, which ranged from 0.68 to 0.86 for the subscales (Faryadi Ghayesh Ghorshagh et al., 2024). In the present study, Cronbach's alpha ranged from 0.88 to 0.91.

Psychological Capital Questionnaire (PCQ). To assess psychological capital, the scale by Lorenz et al., (2016) was used. This instrument has 12 items with four subscales: hope (items 1–3), optimism (items 4–6), resilience (items 7–9), and self-efficacy (items 10–12). Each subscale has three items, scored on a 6-point Likert scale (1 = strongly disagree to 6 = strongly agree). The total score ranges from 12 to 72 and is computed by summing all subscales. In Lorenz et al. (2016), validity was supported by a significant positive correlation with the 24-item version by Luthans et al. (2007) ($r = 0.51$), and reliability was 0.87. Jafari and Khoshnavisan (2021) reported Cronbach's alpha of 0.71, 0.75, and 0.73 for the optimism, resilience, and self-efficacy subscales, respectively, and 0.87 for the total scale. In their study, validity via inter-variable correlations showed hope and psychological capital ($r=0.76$), resilience and psychological capital ($r=0.84$), and self-efficacy and psychological capital ($r=0.80$), indicating satisfactory validity. In the present study, Cronbach's alpha for the total scale was 0.901, indicating desirable validity and reliability.

Training in quality-of-life therapy techniques. This program was delivered in eight 90-minute sessions. The sessions included orientation, introduction of relevant domains, introduction of the CASIO model, and instruction in applying quality-of-life therapy techniques across various life areas (Mokhtari Dizaji & Sohrabi, 2018). Eight-session training program for quality-of-life therapy techniques is presented in Table 1.

Table 1*Eight-session training program for quality-of-life therapy techniques*

Session	Content
Session 1	Orientation and introduction to quality-of-life therapy; administering the pretest; introductions; class rules; goals and overview of the training; introduction and discussion of quality of life, life satisfaction, and happiness.
Session 2	Defining methods to improve quality of life: introducing the 16 domains specified in quality-of-life therapy; familiarizing students with the dimensions of life satisfaction using a “tree of life”; identifying problematic areas.
Session 3	Introducing the CASIO model as five roots: explaining quality of life based on the five CASIO concepts—1) circumstances/conditions of life, 2) attitudes, 3) standards, 4) priorities, 5) satisfaction across domains; training in strategies one and two (“circumstances/conditions” and “attitudes”) and their application to quality-of-life dimensions.
Session 4	Continuing the CASIO concepts: training in the strategies “standards,” “priorities,” and “satisfaction across domains” and their application to quality-of-life dimensions.
Session 5	Introducing the first set of 16 core domains: discussing five domains—physical health, self-esteem, goals and values, money/materials, job; presenting principles and their application to enhance happiness, cognitive emotion regulation, and psychological capital.
Session 6	Introducing the second set of 16 core domains: discussing five domains—play, learning, creativity, helping others, love; presenting principles and their application to enhance happiness, cognitive emotion regulation, and psychological capital.
Session 7	Introducing the third set of 16 core domains (relationships): discussing five domains—friends, children, relatives, home and neighbors, community, spouse; presenting principles and their application to enhance happiness, cognitive emotion regulation, and psychological capital.
Session 8	Final session: summarizing previous content; consolidation; training in generalizing the five roots to various life conditions and applying the principles across life domains; administering the posttest.

Mindfulness training

This program was delivered in eight 90-minute sessions, including introduction, meditation, and instruction in mindfulness-based approaches to

behavior, thoughts, and emotions. Each session included in-class exercises and home practice. Eight-session mindfulness training program is presented in [Table 2](#).

Table 2*Eight-session mindfulness training program*

Session	Content
Session 1	Orientation and training in mindful breathing: administering the pretest; establishing rapport with students; introducing mindfulness; the need for mindfulness training; presenting the course; discussing what brought participants to the course and their expectations. Training in breathing techniques with relaxation and without thinking about other matters; training in pre-sleep mindful breathing for 20 minutes. Creating a supportive environment for subsequent sessions. Homework: pre-sleep mindful breathing.
Session 2	Slowing the mind: mindfulness begins when we recognize our intention to be mindful. People often perform daily tasks in a kind of “automatic” state, acting without awareness of self, others, or the world around them. Participants recognize this and take the first step toward leaving this state by increasing focus and accuracy instead of speed. Core exercises: when the mind is hijacked by preoccupations, use experiential exercises and metaphors to regain control, such as mindful attention to daily activities at a slower pace (e.g., mindful toothbrushing) and the raisin-eating exercise (picking up, seeing, touching, smelling, placing in the mouth, chewing, swallowing, and sensory tracing), and habit-breaking practices (doing the opposite of routine, such as changing one’s seat). Homework: daily body-scan meditation; slowing daily activities mindfully (driving, washing dishes, brushing teeth, eating); eating one meal mindfully during the week.
Session 3	Mindfulness of body and learning the “knowing” mode: aim is to become aware of bodily changes and sensations; training attention to bodily movements during breathing. Thinking is often judgmental, whereas direct awareness tends to be nonjudgmental; noticing how awareness of experience changes its nature; learning modes of mind (doing/obedient vs being). Core exercises: body scan; mindful walking (focusing on bodily changes and movements while walking) to gradually learn the difference between the “thinking mind” and the “sensing mind”; 3-minute breathing space (focusing fully on the breath as it flows in and out). Homework: daily mindful breathing for 10 minutes; one-minute meditations as desired.
Session 4	Mindfulness of emotions and the surrounding world: core exercises include mindfulness of the senses; in-class raisin or chocolate exercise and at-home mindful eating (eating slowly with attention to taste and appearance); mindful walking; attentive observation of the environment as a spectator; focusing on positive aspects of situations and events; mountain meditation. Homework: extend the raisin exercise to other activities; mindful walking.
Session 5	Staying in the present (living in the now instead of getting stuck in the past or future): aim is to practice staying in the present and guiding thoughts toward being in the here-and-now. Core exercises: 10-minute loving-kindness meditation and forgiveness-in-daily-life meditation, preceded by breath and body practices, followed by the 3-minute breathing space. Meditation for making more mindful choices that foster creativity, resilience, and the capacity to enjoy life as it is, not merely as desired. Changing attachment to pleasure: mindful engagement with pleasurable activities that displace core, meaningful tasks. Homework: 3-minute breathing space three times a day and as needed; preparing a table to track shifts away from pleasure-attached thinking.
Session 6	Mindfulness of thoughts and observing thoughts: training proceeds through focusing attention on the mind without thinking about other matters by concentrating on a marked point (an “X”) on paper for 15 minutes. Core exercises: meditation on sounds and thoughts, relating to thoughts like sounds or passing clouds; letting go of rigid, one-sided, and irrational thoughts, beliefs, and desires through acceptance. Homework: 3-minute breathing space

	using the three steps—awareness, redirecting attention, and expanding attention—to settle in the face of turbulent, distressing thoughts; breaking resistance to change.
Session 7	Training attention to the mind and turning toward problems: recognizing pleasant and unpleasant thoughts; allowing both to enter and leave the mind easily without judgment; cultivating nonjudgmental awareness and deep attention. Facing life problems rather than avoiding them helps some problems resolve on their own, whereas others should be acknowledged as realities and met with openness, curiosity, and compassion; ignoring such problems can progressively undermine life. Core exercises: 3-minute breathing space during a pleasant event; 3-minute breathing space during an unpleasant event; a 10-minute “problem-discovery” meditation; identifying pleasant and unpleasant life events and planning for maximal pleasant events; labeling negative thinking patterns (forbidden thoughts, worrying, distressing thoughts) and positive statements (pleasant and hopeful). Homework: writing daily positive and negative experiences without judging them, and preparing a list of negative thoughts with positive replacements.
Session 8	Final session: gathering feedback on the principles taught; reviewing and summarizing past materials; recommending daily planning of activities and application of mindfulness techniques in life; asking whether participants met their expectations and whether they wish to continue mindfulness practice. Administering the posttest.

Analysis

At the outset, after obtaining informed consent and assuring participants that their information would remain confidential and that confidentiality would be maintained, data analysis was planned using repeated-measures ANOVA in SPSS version 26, with the significance level set at 0.05.

Findings and Results

The mean $\pm$ standard deviation of age for the mindfulness training group was 22.2 ± 1.79 , for the

quality-of-life therapy techniques training group was 21.5 ± 2.35 , and for the control group was 21.06 ± 1.70 . Regarding gender, in the mindfulness group there were 8 males (53%) and 7 females (47%). In the quality-of-life therapy techniques training group, there were 5 males (33.3%) and 10 females (66.6%). In the control group, there were 6 males (40%) and 9 females (60%). As shown in the Table 3, statistical tests indicated no significant differences among the groups in terms of demographic variables.

Table 3

Demographic characteristics of the study participants

Variable	Mindfulness Training (n=15)	Quality of Life Therapy Techniques Training (n=15)	Control Group (n=15)
Age			
Mean	22.2	21.5	21.06
Standard Deviation	1.79	2.35	1.70
	$F = 2.97, P = 0.068$		
Gender			
Male	8 (53%)	5 (33.3%)	6 (40%)
Female	7 (47%)	10 (66.6%)	9 (60%)
	$\chi^2(2) = 6.53, P = 0.124$		

As observed in Table 4, the means of the studied variables for the three groups (two intervention groups and one control group) are shown. It can be seen that in the pre-test phase, there were no major differences

among the groups, whereas after the interventions, both experimental groups showed significant improvements compared with the control group. These differences were also maintained at the follow-up stage.

Table 4

Descriptive statistics of the study variables

Variable	Group	Pre-test (M $\pm$ SD)	Post-test (M $\pm$ SD)	Follow-up (M $\pm$ SD)
Happiness	Mindfulness Training	36.4 $\pm$ 3.46	45.6 $\pm$ 3.75	45.5 $\pm$ 3.79
	Quality of Life Therapy Techniques	36.9 $\pm$ 4.25	41.06 $\pm$ 4.84	41.1 $\pm$ 4.83
	Control	37.3 $\pm$ 5.13	37.6 $\pm$ 4.82	37.4 $\pm$ 4.71
Adaptive Cognitive Emotion Regulation Strategies	Mindfulness Training	16.7 $\pm$ 2.31	26.7 $\pm$ 4.39	26 $\pm$ 4.08
	Quality of Life Therapy Techniques	17.08 $\pm$ 3.13	23.9 $\pm$ 3.97	23.2 $\pm$ 3.91
	Control	17.4 $\pm$ 3.20	18.8 $\pm$ 2.59	18.1 $\pm$ 2.38
Maladaptive Cognitive Emotion Regulation Strategies	Mindfulness Training	28.2 $\pm$ 2.68	17.9 $\pm$ 2.71	18.6 $\pm$ 3.17
	Quality of Life Therapy Techniques	25.7 $\pm$ 4.07	21.7 $\pm$ 3.87	22.1 $\pm$ 3.96
	Control	29.09 $\pm$ 2.38	28.4 $\pm$ 1.94	29.2 $\pm$ 1.86
Psychological Capital	Mindfulness Training	37.9 $\pm$ 6.85	53.5 $\pm$ 6.03	52.4 $\pm$ 6.12

Quality of Life Therapy Techniques	38.4 ± 5.33	58.1 ± 9.88	57.2 ± 9.40
Control	38.9 ± 6.90	39.5 ± 7.24	38.8 ± 6.76

To examine the equality of covariance matrices, Box's M test was applied, resulting in $M = 88.8$, $F = 13.06$, $P < 0.01$, which indicated that the assumption of homogeneity of covariance matrices was not met. However, considering the equality of group sizes, this violation was tolerable (Rezaie & Ostovar, 2017). Mauchly's test of sphericity ($W = 0.055$, $\chi^2 = 78.1$, $P <$

0.01) was not significant at the 0.05 level; thus, the Greenhouse-Geisser correction was used in the repeated measures ANOVA. The homogeneity of variances for happiness ($F = 0.449$, $P > 0.05$), adaptive emotion regulation ($F = 0.249$, $P > 0.05$), maladaptive emotion regulation ($F = 0.123$, $P > 0.05$), and psychological capital ($F = 0.357$, $P > 0.05$) was confirmed.

Table 5

Results of multivariate mixed ANOVA on the study variables

Source	Test	Value	F	Hypothesis df	Error df	Sig.	Eta Squared
Evaluation Time	Pillai's Trace	0.999	4883.7	8	35	0.001	0.999
	Wilks' Lambda	0.001	4883.7	8	35	0.001	0.999
	Hotelling's Trace	1116.2	4883.7	8	35	0.001	0.999
	Roy's Largest Root	1116.2	4883.7	8	35	0.001	0.999
Evaluation Time * Group	Pillai's Trace	1.27	7.95	16	72	0.001	0.639
	Wilks' Lambda	0.07	12.2	16	70	0.001	0.736
	Hotelling's Trace	8.38	17.8	16	68	0.001	0.807
	Roy's Largest Root	7.74	34.8	8	36	0.001	0.886

As shown in Table 5, all multivariate tests (Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root) were significant, indicating meaningful differences among the groups across evaluation times and their interactions. Therefore, it can be concluded that there was a significant difference between the

effects of mindfulness training and quality-of-life therapy techniques training on the study variables. To identify the specific sources of these differences, Bonferroni post-hoc tests were conducted, and the results are presented in Table 5.

Table 6

Bonferroni post-hoc test results comparing the three groups on study variables

Variables	Stage	Group 1	Group 2	Mean Difference	Sig.
Happiness	Pre-test	Mindfulness	QoL Therapy	-0.466	1.000
		Mindfulness	Control	-0.866	1.000
		QoL Therapy	Control	0.4	1.000
	Post-test	Mindfulness	QoL Therapy	*4.53	0.026
		Mindfulness	Control	*8.0	0.001
		QoL Therapy	Control	*3.46	0.030
	Follow-up	Mindfulness	QoL Therapy	*4.40	0.030
		Mindfulness	Control	*8.06	0.001
		QoL Therapy	Control	*3.66	0.041
Adaptive Strategies	Pre-test	Mindfulness	QoL Therapy	-0.353	1.000
		Mindfulness	Control	-0.766	1.000
		QoL Therapy	Control	-0.413	1.000
	Post-test	Mindfulness	QoL Therapy	*2.72	0.049
		Mindfulness	Control	*7.84	0.001
		QoL Therapy	Control	*5.12	0.001
	Follow-up	Mindfulness	QoL Therapy	*2.80	0.044
		Mindfulness	Control	*7.87	0.002
		QoL Therapy	Control	*5.06	0.001
Maladaptive Strategies	Pre-test	Mindfulness	QoL Therapy	2.50	0.104
		Mindfulness	Control	-0.85	1.000
		QoL Therapy	Control	*3.35	0.017

Psychological Capital	Post-test	Mindfulness	QoL Therapy	*-2.84	0.035
		Mindfulness	Control	*-9.53	0.001
		QoL Therapy	Control	*-6.69	0.001
	Follow-up	Mindfulness	QoL Therapy	*-3.26	0.020
		Mindfulness	Control	*-10.3	0.001
		QoL Therapy	Control	*-7.13	0.001
	Pre-test	Mindfulness	QoL Therapy	-0.533	1.000
		Mindfulness	Control	-1.0	1.000
		QoL Therapy	Control	-0.466	1.000
	Post-test	Mindfulness	QoL Therapy	*-7.33	0.030
		Mindfulness	Control	*11.2	0.001
		QoL Therapy	Control	*18.6	0.001
	Follow-up	Mindfulness	QoL Therapy	*-7.0	0.030
		Mindfulness	Control	*11.4	0.001
		QoL Therapy	Control	*18.4	0.001

According to the Bonferroni test results in Table 6, there were no significant differences among the three groups in pre-test measures of happiness, cognitive emotion regulation, or psychological capital ($P > 0.05$). However, in post-test and follow-up stages, both intervention groups showed significant improvements compared with the control group ($P < 0.05$). Between the two interventions, mindfulness training showed greater effectiveness on happiness and cognitive emotion regulation, whereas quality-of-life therapy techniques training showed higher effectiveness on psychological capital ($P < 0.05$).

Discussion and Conclusion

The present study aimed to compare the effectiveness of mindfulness training and quality-of-life therapy techniques training on students' happiness, cognitive emotion regulation, and psychological capital. The results showed that there is a difference between the effectiveness of mindfulness training and quality-of-life therapy techniques on students' happiness. No prior study comparing these two interventions specifically on happiness was found.

This finding can be explained by noting that mindfulness training helps individuals increase metacognitive awareness of their thoughts and bodily feelings and adopt a nonjudgmental stance toward them, thereby taking steps to release themselves from painful, self-critical thoughts and emotions. This process fosters a compassionate attitude toward oneself and others. Such a stance enables a person to step back from inner and outer shortcomings and, with a broader perspective on oneself and the surrounding world, respond to difficulties and weaknesses with kindness and care, thus cultivating self-compassion and compassion for others

(Tešin et al., 2024). This mechanism may account for the greater effectiveness of mindfulness compared with quality-of-life therapy in enhancing happiness.

In mindfulness practice, individuals learn, in a concrete and experiential way, to relate to themselves with compassion and kindness. They learn to hold a compassionate, nonjudgmental attitude toward their thoughts and feelings and to apply mindfulness when facing problems and crises, seeking experiences grounded in friendliness rather than hostility. The importance of self-compassion, gentleness, friendly awareness, and intentional openness cultivated through mindfulness leads to increases in self-compassion (Peixoto & Gondim, 2020). Moreover, the teaching and learning of mindfulness requires an enabling atmosphere—one that is shaped by compassion and kindness first toward oneself and then toward others. Mindfulness is a core component of self-compassion; accordingly, identifying the pain and suffering that people bear is essential for increasing happiness within mindfulness programs (Zia et al., 2024). Therefore, the greater effectiveness of mindfulness training than quality-of-life therapy for enhancing students' happiness is justifiable.

It may also be added that mindfulness training, through a systematic framework, helped participants clarify values relevant to changing their decisions and life trajectories and opened new avenues for them. Learning this approach enabled participants to act with commitment, clarify life values, and set goals. They were able to anticipate potential obstacles and prepare structured plans to improve therapeutic conditions and their broader lives. Consequently, they became less entangled in cognitive and emotional traps. Ultimately, by cultivating a flexible mind focused on the present, and

by embracing certain therapeutic processes, they achieved greater improvements in happiness.

The findings further indicated no difference between the effectiveness of mindfulness training and quality-of-life therapy techniques on students' cognitive emotion regulation. No study was found that directly compared these two interventions on this construct. In both mindfulness and quality-of-life therapy, individuals are supported in gaining insight and awareness regarding life, its challenges, necessities, and demands. In quality-of-life therapy, the therapist seeks to help clients avoid wasting time and, instead, treat each moment as an opportunity for living, being, flourishing, and fulfillment; to delineate domains of life clearly; and to pursue aims and goals across these domains. In both approaches, clients are helped to adapt effectively to life's challenges and to cultivate an open, expansive attitude toward life. When emphasis is placed on the whole of life and its overarching meaning, the constituent parts can take on new significance. Accordingly, the absence of a difference between the two trainings in their impact on emotion regulation is understandable.

The results also showed no difference between the effectiveness of mindfulness training and quality-of-life therapy techniques on students' psychological capital. No study directly comparing the two interventions on psychological capital was found. This finding can be explained by noting that, in both approaches, individuals are taught to attend to all thoughts and feelings without judgment. In other words, in both interventions, the key is to become aware of thoughts as they arise, while refraining from becoming entangled in internal scenarios and the emotions connected to those thoughts. Thus, participants in both approaches acquire skills for regulating and strengthening attentional control; these attention-control skills, taught in both interventions, can contribute to increases in psychological capital.

Overall, the results of this study showed that happiness, cognitive regulation, and psychological capital in the intervention groups were substantially better than the control group at posttest and follow-up. Both interventions largely improved happiness, cognitive emotion regulation, and psychological capital and thus can be used to enhance these variables.

This study had several limitations. First, the use of nonrandom convenience sampling restricts the generalizability of the findings; future research is

encouraged to use probability sampling methods. Second, the sample consisted of university students, which limits generalization to the wider population; it is recommended that the study be replicated in other educational groups. Additional limitations include reliance solely on questionnaires, lack of control over certain confounding variables, and uncertainty about participants' adherence to all instructions outside of sessions. Future research should incorporate additional methods such as interviews, better control of potential confounders, random sampling, and strategies to support compliance with therapeutic assignments.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Ethical considerations in this study were that participation was entirely optional.

Transparency of Data

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

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Authors' Contributions

All authors equally contribute to this study.

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