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Short-Term Intensive MBSR and Mental Health Outcomes: A Mixed-Methods Evaluation of Immediate and Long-Term Effects

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Abstract

This study investigates the effectiveness of a 5-day intensive Mindfulness-Based Stress Reduction (MBSR) program in enhancing emotional well-being, reducing depressive symptoms, and improving mindfulness awareness. Addressing the limited evidence on condensed mindfulness formats, twelve adult participants completed validated pre- and post-intervention assessments, including the Emotional Well-Being Subscale, the Taiwan Depression Scale, and the Mindfulness Attention Awareness Scale (MAAS). Paired-samples t-tests revealed significant improvements across all outcomes: emotional well-being increased with a medium effect size (d = 0.659), depressive symptoms decreased substantially (d = 0.834), and mindfulness awareness showed a large gain (d = 1.045). No participant demonstrated declines in emotional well-being, and nearly all improved in mindfulness awareness. Qualitative follow-up analyses at two and four months indicated enduring benefits. Participants described greater emotional clarity, enhanced acceptance, reduced self-criticism, improved stress coping, and increased present-moment engagement, suggesting that the psychological gains persisted beyond the intervention period. Individuals with prior mindfulness experience consistently exhibited higher baseline and post-test mindfulness levels. As a result, the findings provide empirical support for the 5-day intensive MBSR program as a practical and accessible alternative to traditional long-duration courses, capable of generating meaningful and sustained improvements in mental health and mindfulness practice.

JEL classification numbers: I12, I31, D91, Z00.
Keywords: Mindfulness, Mindfulness-Based Stress Reduction, Mindfulness awareness, Emotional well-being, depression.

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1. Introduction

Mindfulness has become an increasingly prominent concept in psychological and behavioral research, with evidence demonstrating its effectiveness in improving emotional well-being, reducing psychological distress, and enhancing adaptive functioning. The roots of mindfulness can be traced to early Buddhist philosophy, most notably the *Satipaṭṭhāna Sutta*—the foundational discourse outlining the four establishments of mindfulness: mindfulness of the body, feelings, mind states, and mental phenomena. These practices emphasize sustained attention, experiential awareness, non-reactivity, and insight into the nature of internal experiences.

In the modern era, mindfulness has been secularized and operationalized for therapeutic application. Kabat-Zinn (1994) defined mindfulness as "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally," highlighting both attentional control and an open, accepting orientation toward experience. Bishop et al. (2004) further conceptualized mindfulness as comprising self-regulated attention and an attitude of curiosity and acceptance, forming the foundation of contemporary mindfulness-based interventions.

Building on these principles, Kabat-Zinn (1982) developed Mindfulness-Based Stress Reduction (MBSR) at the University of Massachusetts Medical School. MBSR integrates sitting meditation, body scan exercises, and mindful yoga into a structured program that promotes awareness and adaptive coping. Over the past four decades, extensive research has shown that MBSR produces significant improvements in anxiety, depression, emotional regulation, stress, and overall psychological well-being (Grossman et al., 2004; Khoury et al., 2013). As a result, MBSR has become one of the most empirically supported mindfulness interventions.

Most empirical studies, however, have focused on the standard 8-week MBSR program, which requires significant time and logistical commitment. Although effective, this format may not be feasible for many individuals due to work schedules, caregiving responsibilities, or geographic limitations. In response, shorter, intensive MBSR formats have been developed to enhance accessibility. Despite their growing popularity in clinical and community settings, the scientific literature examining the efficacy of condensed, high-dose MBSR programs remains limited. Existing studies suggest that shorter interventions may yield comparable benefits to traditional programs (Carmody & Baer, 2009; Fitzgerald et al., 2019), yet empirical evidence—particularly within Asian populations—remains sparse.

Additionally, few studies have explored whether short-term MBSR programs produce both immediate and sustained improvements in emotional well-being, depressive symptoms, and mindfulness awareness, three core constructs linked to mental health and resilience. Emotional well-being reflects the balance of positive and negative affect; depression represents a major global health burden; and mindfulness awareness is considered both an outcome and a mechanism underlying mindfulness-based interventions. Understanding how these domains respond to a short-term mindfulness intervention contributes to both theory and practice.

To address these gaps, the present study investigates the effectiveness of a 5-day intensive MBSR course delivered in Taiwan. This design offers a unique opportunity to evaluate whether a condensed mindfulness intervention can generate measurable improvements in emotional well-being, depression, and mindfulness awareness within a short time frame. Moreover, by incorporating qualitative follow-up interviews at two and four months, the study assesses whether the benefits of the intensive course are maintained beyond the immediate post-intervention period. Accordingly, this study addresses the following research questions:

RQ1: Does participation in a 5-day intensive MBSR course improve emotional well-being?
RQ2: Does the intensive MBSR course reduce depressive symptoms?
RQ3: Does the intensive MBSR course enhance mindfulness awareness?

By examining both quantitative outcomes and qualitative experiences, this study contributes to the growing body of mindfulness research by providing empirical evidence on the efficacy and sustained impact of condensed MBSR interventions. The findings have meaningful implications for expanding the accessibility, scalability, and practical implementation of mindfulness programs across diverse populations.

2. Literature Review

2.1 The Connotation of Mindfulness

Mindfulness, or *sati* in Pali, is a multifaceted construct encompassing attention, awareness, and recollection. Its origins can be traced to early Buddhist teachings, particularly the *Satipaṭṭhāna Sutta*, which outlines the Four Foundations of Mindfulness—mindfulness of the body, feelings, mind states, and mental phenomena—as a systematic method for cultivating insight and reducing suffering. While rooted in contemplative traditions, mindfulness has been conceptually adapted for secular contexts.

Kabat-Zinn (1994) provided the most widely adopted modern definition, describing mindfulness as "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally." This formulation emphasizes intentional attention and an attitude of openness and acceptance, forming the foundation of contemporary mindfulness-based interventions such as MBSR. From a psychological perspective, Martin (1997) integrated Eastern and Western conceptualizations and characterized mindfulness as a state of cognitive flexibility, unbiased awareness, and the capacity to suspend or reframe habitual patterns of thought, emotion, and behavior.

Collectively, these perspectives suggest that mindfulness practice involves intentionally disengaging from mind-wandering and automatic judgments by cultivating present-moment attention, non-reactivity, and self-awareness. Such processes are understood to reduce maladaptive cognitive and emotional patterns, thereby supporting improved psychological functioning and overall mental health.

2.2 Mindfulness-Based Stress Reduction (MBSR) Program

Mindfulness-Based Stress Reduction (MBSR) is a secular, evidence-based intervention that integrates principles derived from Buddhist meditative traditions with contemporary behavioral medicine (Kabat-Zinn et al., 2011). The program is designed to cultivate present-moment awareness and non-reactivity through systematic training in mindfulness meditation and mindful movement. Its core components—sitting meditation, body scan practices, and mindful yoga—provide complementary pathways for developing sustained attention, emotional regulation, and embodied awareness.

In sitting meditation, participants attend to the breath—such as the rising and falling of the abdomen or sensations at the nostrils—while observing arising thoughts and emotions without judgment and gently returning attention to the breath. The body scan involves directing awareness sequentially through different regions of the body, noticing physical sensations with acceptance and fostering increased embodiment and interoceptive sensitivity. Mindful yoga, adapted from Hatha Yoga, incorporates gentle stretching and movement performed with continuous awareness of bodily sensations, breath, and emotional states, encouraging a balanced and responsive relationship with the body.

The standard MBSR program is delivered over eight weeks, typically involving weekly 2.5–3-hour sessions and a full-day silent retreat. Participants engage in formal practices such as the Raisin Exercise, sitting meditation, body scan, mindful walking, and mindful stretching, complemented by discussions designed to deepen self-awareness and adaptive coping.

The present study employs a 5-day intensive MBSR format, which condenses the core components of the traditional 8-week curriculum into a shorter, continuous program authorized by the UMass Memorial Center for Mindfulness in 2019. Intensive formats have been designed to increase accessibility for individuals unable to commit to extended interventions while maintaining fidelity to the theoretical and practical foundations of MBSR. The condensed structure allows for sustained immersion in mindfulness practice, facilitating rapid acquisition and integration of mindfulness skills into daily life.

2.3 The Connotation of Emotional Well-Being

Emotional well-being is a foundational construct within positive psychology, which emphasizes human strengths, optimal functioning, and the promotion of flourishing. In much of the psychological literature, emotional well-being is discussed interchangeably with the broader concept of subjective well-being (SWB). Diener (1984) defined subjective well-being as an individual's cognitive and affective evaluation of life, encompassing the presence of positive emotions, the relative absence of negative emotions, and overall life satisfaction. Within this framework, emotional well-being specifically reflects the balance between pleasant and unpleasant affective experiences.

Keyes and Waterman (2003) further conceptualized emotional well-being as a

multidimensional construct that integrates both cognitive appraisals of life satisfaction and affective indicators such as the frequency and intensity of positive and negative emotions. Higher emotional well-being is associated with greater psychological resilience, adaptive coping, and improved health outcomes, positioning it as a critical indicator of mental health. In the context of mindfulness research, emotional well-being is frequently examined as both an outcome and a mechanism of change, as mindfulness practices aim to foster enhanced awareness, acceptance, and regulation of emotional experiences.

2.4 The Connotation of Depression

Depression, before its clinical diagnosis, can manifest as persistent depressive emotions and maladaptive affective states. Clinically, the *Diagnostic and Statistical Manual of Mental Disorders* (Svenaeus, 2014) classifies depressive disorders into several categories, including major depressive disorder and persistent depressive disorder, each characterized by pervasive low mood, anhedonia, and a constellation of cognitive, emotional, and physiological symptoms. Depression represents a major global public health challenge. The World Health Organization in 2001 projected that depression would become one of the top three global disease burdens by 2020, and subsequent data have confirmed substantial increases in its prevalence and disability-adjusted life years (DALYs). Reports by national health authorities similarly indicate substantial growth in depression-related disease burden across recent decades. Furthermore, the International Association for Suicide Prevention by 2006, has noted that approximately two-thirds of global suicide deaths are associated with depressive disorders, underscoring the urgent need for effective prevention and intervention strategies.

Clinical diagnosis of depression typically relies on DSM-5 criteria, supplemented by validated assessment tools such as the Hamilton Rating Scale for Depression (HRSD). For broader community screening, self-report instruments are frequently used due to their efficiency, accessibility, and acceptability to the general public. In psychological research, depression is often conceptualized as a multidimensional construct encompassing cognitive symptoms (e.g., negative thinking, excessive guilt), emotional symptoms (e.g., sadness, anxiety, irritability), physical or somatic symptoms (e.g., fatigue, sleep disturbance, appetite changes), and interpersonal symptoms (e.g., social withdrawal, communication difficulties) (Lee et al., 2016). Assessing these dimensions allows for a more comprehensive understanding of the prevalence, severity, and phenomenological nature of depression. This multidimensional approach also facilitates evaluation of intervention effects, including those of mindfulness-based programs.

2.5 Relationship among Emotional Well-being, Depression, and Mindfulness

2.5.1 Mindfulness and Emotional Well-being

Mindfulness has been consistently associated with enhanced emotional well-being. Brown and Ryan (2003) proposed that mindfulness facilitates well-being by increasing the ability to maintain awareness and attention to present-moment experiences. Through mindful awareness, individuals are better able to observe emotions without becoming entangled in them, enabling more adaptive emotional responses. This mechanism aligns with Keyes and Waterman's (2003) conceptualization of emotional well-being as the presence of positive affect and the reduction of negative affect. Empirical evidence supports these theoretical perspectives: mindfulness practice has been shown to enhance psychological well-being, reduce psychological tension, and increase positive emotional experiences (Jensen et al., 2012). Interventions incorporating mindfulness have also demonstrated improvements in emotional well-being among adolescents, suggesting effectiveness across age groups (Lau & Hue, 2011; Oberle et al., 2012).

2.5.2 Mindfulness and Depression

A substantial body of research indicates that mindfulness is inversely related to depressive symptoms. Mindfulness training helps individuals recognize and disengage from maladaptive cognitive patterns such as rumination, thereby reducing susceptibility to depressive thinking. Studies have shown that mindfulness-based interventions significantly reduce perceived stress and promote physiological and psychological health (Roberts & Danoff-Burg, 2010). Meta-analytic evidence further demonstrates that mindfulness-based therapies yield moderate effect sizes in reducing depression and anxiety (Hofmann et al., 2010), with particularly strong effects among individuals with emotional disorders. The consistently negative correlation observed between mindfulness and depression suggests that increased mindfulness is associated with fewer depressive symptoms and enhanced emotional regulation.

2.5.3 Emotional Well-Being and Depression

Emotional well-being and depression share a reciprocal relationship. Higher levels of emotional well-being are associated with lower depressive tendencies, whereas diminished emotional well-being increases vulnerability to depressive symptoms. Prior research has shown that interventions aimed at promoting well-being can serve protective and therapeutic functions in the context of depression (Henderson, 2007; Seligman, 2002). Individuals with higher optimism—a component of emotional well-being—tend to experience fewer negative emotions and display reduced risk for depression (Chang & Sanna, 2001). Cross-cultural evidence further supports these findings: Diener (1984) identified a strong negative correlation between emotional well-being and depression among Chinese participants, and similar patterns have been observed among Taiwanese university students (Shek et al., 2017;

Lee et al., 2016). Collectively, these studies demonstrate that emotional well-being is a robust protective factor against depression.

Taken together, existing literature suggests a triadic relationship in which mindfulness enhances emotional well-being, mindfulness reduces depression, and higher emotional well-being further protects against depressive symptoms. These dynamics provide a compelling theoretical foundation for examining the effects of mindfulness-based interventions—such as MBSR—on emotional well-being and depression simultaneously.

3. Research Methods

3.1 Research Procedure and Framework

The research framework (Figure 1) outlines the hypothesized effects of the 5-day intensive MBSR program on participants' psychological outcomes. Grounded in existing literature, the model posits that participation in the MBSR course will lead to (a) a reduction in depressive symptoms and (b) increases in emotional well-being and mindfulness awareness.

The research procedure followed a sequential mixed-methods design. First, a comprehensive literature review informed the development of the study framework and selection of measurement instruments. Participants were then recruited and completed pre-test assessments using three validated scales measuring emotional well-being, depressive symptoms, and mindfulness awareness. Following the administration of the 5-day intensive MBSR program, participants completed post-test assessments to evaluate immediate intervention effects. To examine delayed and sustained outcomes, qualitative data were collected through open-ended questionnaires and semi-structured in-depth interviews conducted at two and four months after the intervention.

Both quantitative and qualitative analytical techniques were employed. Quantitative data were analyzed using descriptive statistics and paired-samples t-tests to assess pre–post changes, while effect sizes were calculated to determine the magnitude of intervention effects. Qualitative responses were thematically analyzed to capture participants' subjective experiences, perceived benefits, and reflections on mindfulness practice over time. This integrative approach allows for a comprehensive understanding of both immediate and longer-term impacts of the intensive MBSR program.

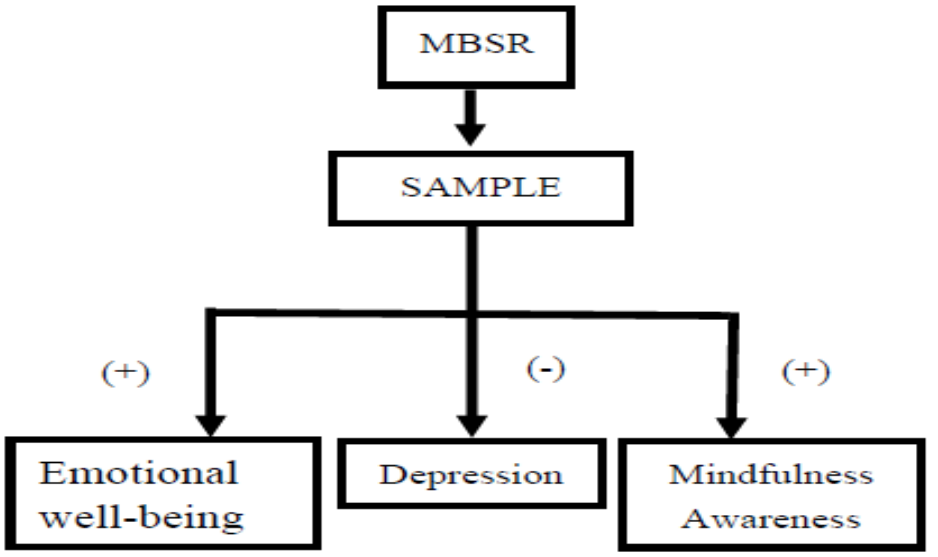

Figure 1: The Research Framework

3.2 Participants

The study sample comprised 12 adult participants who voluntarily enrolled in a 5-day intensive Mindfulness-Based Stress Reduction (MBSR) program. The sample included 2 males (16.7%) and 10 females (83.3%). Participants spanned a broad age range: 3 individuals (25.0%) were aged 26–35 years, 4 (33.3%) were aged 36–45 years, and 5 (41.7%) were aged 46 years or older. Occupational backgrounds were diverse, with 4 participants (33.3%) employed in the health sector, 3 (25.0%) working in education, and 2 (16.7%) identified as students. The remaining participants were engaged in service, labor, and administrative occupations. Most participants resided in Northern Taiwan (66%), with others coming from Central Taiwan (16.6%), Eastern Taiwan (8.3%), and regions outside Taiwan (8.3%). Half of the participants (50%) were new to mindfulness practice, while the remainder reported varying degrees of prior experience—four participants (33.3%) had practiced mindfulness for 1–2 years and two (16.6%) for 2–5 years. Their motivations for participation included learning mindfulness techniques, enhancing self-awareness, improving emotional or interpersonal functioning, pursuing personal growth, and gaining skills to support the dissemination of mindfulness practices.

3.3 Research Instruments

Data were collected through online questionnaires administered after obtaining informed consent from all participants. The study employed three validated psychometric scales to assess emotional well-being, depressive symptoms, and mindfulness awareness, supplemented by qualitative instruments designed to capture participants' subjective experiences over time.

3.3.1 Emotional Well-Being Subscale

Emotional well-being was measured using the four-item Emotional Well-being Subscale developed by Shek et al. (2017). This instrument assesses perceived life satisfaction and subjective happiness, capturing dimensions such as tranquility, contentment, and joy. Items are rated on a 4-point Likert scale ranging from *1 = Strongly Disagree* to *4 = Strongly Agree*, with higher scores indicating greater emotional well-being. In the present study, the scale demonstrated excellent internal consistency (Cronbach's $\alpha = 0.933$).

3.3.2 Taiwan Depression Subscale

Depressive symptoms were assessed using the Taiwan Depression Scale (Lee et al., 2016), a 22-item instrument developed from a holistic care perspective. The scale comprises four dimensions: cognitive (items 1–6), emotional (items 7–12), physical (items 13–18), and interpersonal functioning (items 19–22). Responses are recorded on a 4-point scale from *0 = Never* to *3 = Always*, with higher scores reflecting more severe depressive tendencies. For the current sample, the scale exhibited good internal consistency (Cronbach's $\alpha = 0.796$).

3.3.3 Mindfulness Attention Awareness Subscale (MAAS)

Mindfulness awareness was evaluated using the Chinese version of the Mindfulness Attention Awareness Scale (MAAS), translated by Chang et al. (2015) from the original scale developed by Brown and Ryan (2003). The 15-item instrument assesses present-moment awareness by measuring the frequency of inattention or lack of mindfulness in daily activities. All items are reverse-coded and scored on a 6-point Likert scale from *1 = Rarely* to *6 = Almost Always*, with higher scores indicating greater trait mindfulness. The MAAS has demonstrated strong psychometric properties across cultures. In this study, internal consistency was satisfactory (Cronbach's $\alpha = 0.800$).

3.3.4 Open-ended Questionnaires and In-depth Interviews

To complement the quantitative data and explore the sustained effects of the MBSR program, qualitative data were collected using open-ended questionnaires and semi-structured in-depth interviews.

The open-ended questionnaire, administered two months after the intervention, examined participants' engagement in mindfulness practice, interactions with peers, perceived benefits, lifestyle changes, emotional and cognitive shifts, and willingness to participate in follow-up interviews. Key prompts included post-course practice habits, favorite course components, changes in self-perception, and reflections on the impact of mindfulness in daily life.

The in-depth interviews, conducted at four months post-intervention, expanded on themes from the questionnaire and encouraged deeper reflection. Interview questions explored participants' continued mindfulness practice, perceived long-term benefits, lifestyle and interpersonal changes, emotional regulation, and

distinctions between group-based and individual mindfulness practice. These qualitative responses were later subjected to thematic analysis to identify common patterns and experiential themes.
Qualitative data provided deeper insights into participants' experiences.

1. Open-Ended Questionnaire: Designed to understand post-course practice, interaction with peers, lifestyle changes, and shifts in thoughts and emotions. It also inquired about willingness to participate in in-depth interviews. Key questions included:

1) Interaction with group members after the course?
2) Interest in continuing advanced courses?
3) Initial motivation for participating in the MBSR course?
4) Favorite MBSR course unit and reason?
5) Mindfulness practice over the past month?
6) Greatest benefit from the MBSR course?
7) Changes in lifestyle after the MBSR course?
8) Changes in self-perception after the MBSR course?
9) Changes in thoughts and emotional feelings after the MBSR course?
10) A single adjective describing the relationship between mindfulness and yourself?
11) Willingness to participate in an in-depth interview for more insights?

2. In-depth Interviews: Semi-structured interviews followed up on the open-ended questionnaire themes, allowing for exploration of derived questions and thematic categorization. Key interview questions included:

1) Mindfulness practice over the past four months?
2) Greatest benefit from the MBSR course?
3) Changes in lifestyle after the MBSR course?
4) Changes in self-perception after the MBSR course?
5) How were interpersonal relationships handled after the MBSR course?
6) Changes in thoughts and emotional feelings after the MBSR course?
7) Differences between group mindfulness practice/group contact and individual practice?

3.4 Course Design

The MBSR 5-day intensive course design followed the curriculum of the "Taiwan Mindfulness Center". It was structured intensively over five days, with daily themes, PPT presentations, group discussions, sitting meditation, body scan, and mindful yoga exercises. A full day of silent practice was also included, referring to Table 1.

Table 1: Course Design

	Day 1	Day 2	Day 3	Day 4	Day 5
Theme	Encountering mindfulness and reconnecting with oneself	The joy of living in the present and the readily available peace and tranquility	Using wisdom to respond to stress and gently be with emotions	Deepening mindfulness practice and being with oneself	Nourished by mindfulness: living out a new mindful life
Content	A. Introduction to mindfulness B. Raisin exercise C. Mindful breathing D. Body scan E. Exploring cognitive and creative responses F. Mindful standing stretching 1	A. Mindful lying-down stretching B. Small-group and whole-group sharing C. Mindful sitting (awareness of breathing) D. Exploring stress and physical–mental responses E. Mindful walking 1 F. Mindful standing stretching 2	Silent mindfulness practice day (including loving-kindness practice)	A. Mindful standing stretching 3 B. Choiceless awareness C. Mindful responses to stress and emotions D. Small-group and whole-group sharing E. Mindful walking 2 F. Mindful speaking and listening	A. Perspective-taking exercise B. Nourishing and depleting energy exercises C. Review and outlook D. Exploring applications of mindfulness in daily life E. Introduction to relevant resources

3.5 Data Processing

Quantitative data from the pre- and post-test assessments of the Emotional Well-being Subscale, Taiwan Depression Scale, and Mindfulness Attention Awareness Scale (MAAS) were collected via online surveys. Descriptive statistics, including means and standard deviations, were computed to summarize participants' baseline and post-intervention scores. To evaluate the immediate effects of the MBSR program, paired-samples t-tests were conducted to determine whether changes from pre- to post-test were statistically significant. Effect sizes (Cohen's *d*) were calculated to assess the magnitude of intervention effects, with values of 0.20, 0.50, and 0.80 commonly interpreted as small, medium, and large effects, respectively. All statistical analyses were performed using SPSS Statistics version 22.0.

Qualitative data obtained from the open-ended questionnaires and semi-structured in-depth interviews were analyzed using thematic analysis. Responses were systematically coded, categorized, and organized into overarching themes to capture participants' subjective experiences, perceived benefits, and reflections on the MBSR intervention over time. This qualitative component provided contextual depth and facilitated triangulation of findings across methods.

4. Results

4.1 Efficacy Analysis

4.1.1 Efficacy Analysis of MBSR on Emotional Well-Being

A comparison of pre- and post-test scores revealed significant improvements in emotional well-being following the 5-day MBSR intervention (Table 2). Participants' mean scores increased from M = 10.75 (SD = 2.26) at pre-test to M = 12.33 (SD = 2.15) at post-test. A paired-samples *t*-test indicated that this difference was statistically significant, $t(11) = -2.455$, $p = .032$. The effect size was medium (Cohen's d = 0.659), suggesting that the MBSR program produced a meaningful improvement in participants' emotional well-being.

Table 2: Paired t-Test Results for Emotional Well-Being (N = 12)

Emotional well-being	Mean (Standard Deviation)		Degrees of Freedom	t value	p	Effect Size
	pre-test	post-test				
	10.7500 (2.263283	12.3333 2.14617)	11	-2.455	0.032	0.659

As illustrated in Figure 2, six of the 12 participants demonstrated increases of 1 to 6 points, while the remaining 6 showed no change in their scores. Importantly, no participant exhibited a decline in emotional well-being, suggesting that the intervention produced either improvements or stable outcomes across the sample.

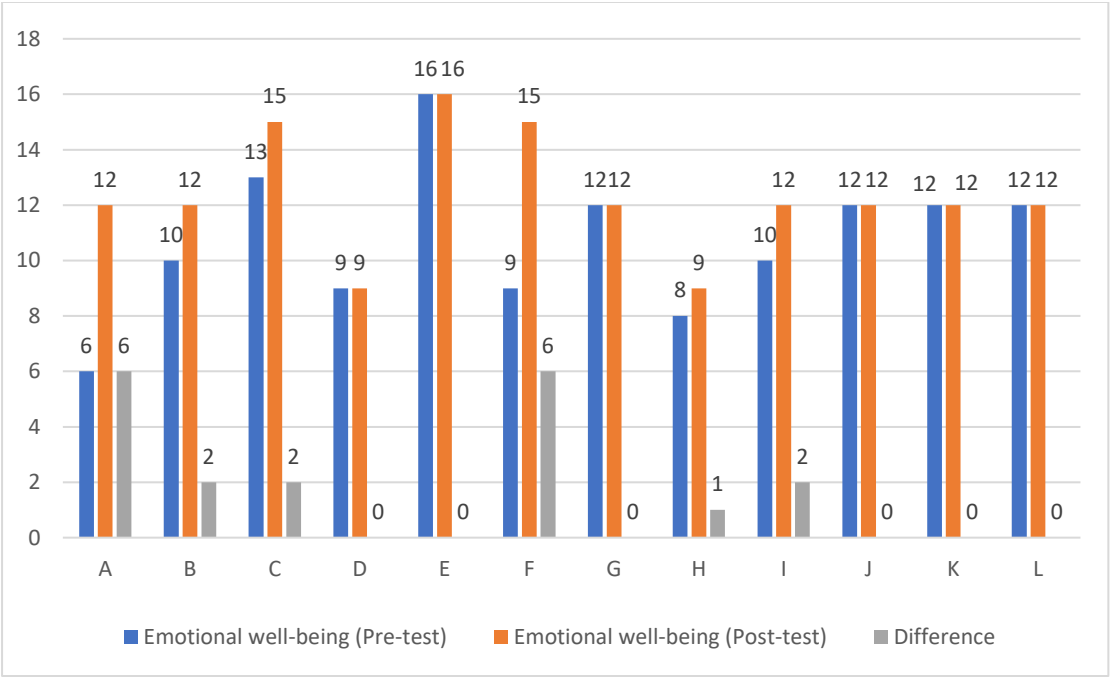

Figure 2: Emotional Well-Being: Pre- and Post-Test Score Comparison

4.1.2 Efficacy Analysis of MBSR on Depression

As Table 3 shows, a paired-samples *t*-test showed a significant reduction in depressive symptoms following the 5-day MBSR intervention. Participants' mean scores decreased from M = 25.42 (SD = 7.08) at pre-test to M = 19.17 (SD = 7.88) at post-test, $t(11) = 5.348$, $p < .001$. The effect size was large (Cohen's $d = 0.834$), indicating a substantial decrease in depressive symptoms as a result of the intervention.

Table 3: Paired t-Test Results for Depression (N = 12)

Depression	Mean (Standard Deviation)		Degrees of Freedom	t value	p	Effect Size
	pre-test	post-test				
	25.4167 (7.07696	19.1667 7.88362)	11	5.348	0.000	.834

Figure 3 displays a bar chart illustrating each participant's (A–L) depressive symptom scores before and after the MBSR intervention. The chart shows that most participants experienced notable reductions in depressive symptoms—for example, Participant F showed a 12-point decrease, Participant E an 11-point decrease, and Participants A and K each an 8-point decrease—while only Participant I showed no change.

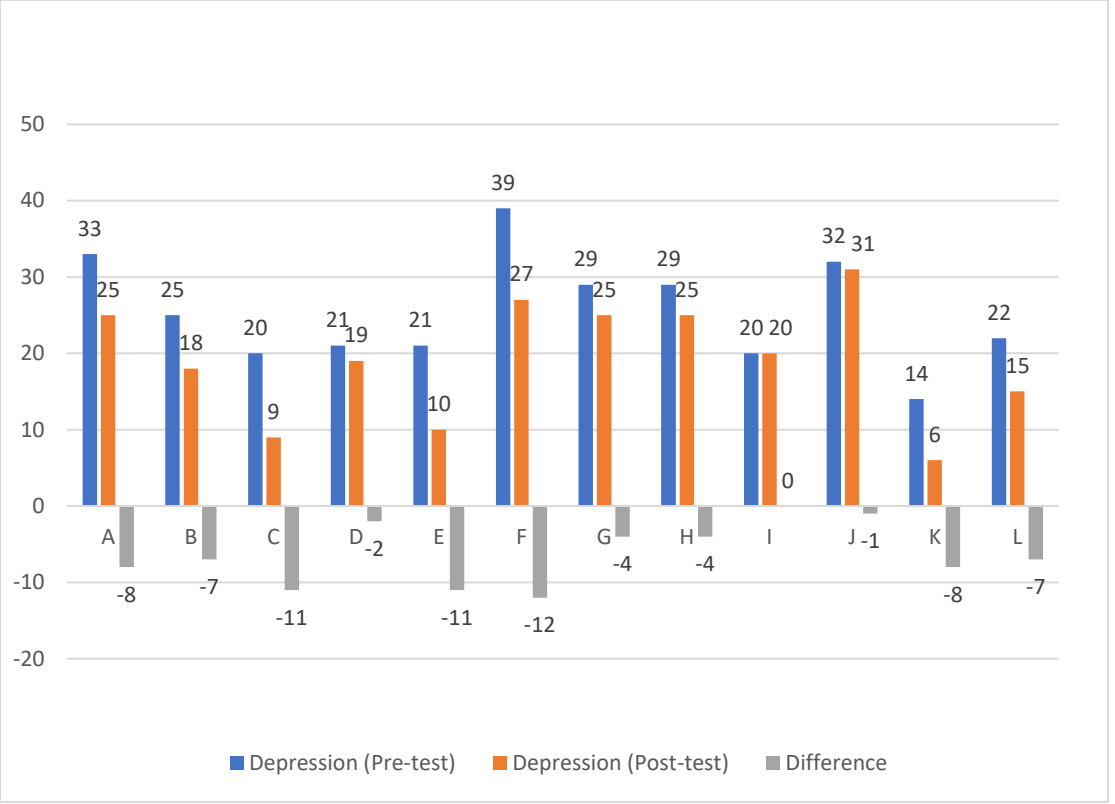

Figure 3: Depression: Pre- and Post-Test Score Comparison

4.1.3 Efficacy Analysis of MBSR on Mindfulness Awareness

A paired-samples *t*-test revealed a significant increase in mindfulness awareness following the MBSR intervention (Table 4). Participants' mean scores rose from M = 58.50 (SD = 9.24) at pre-test to M = 67.25 (SD = 7.40) at post-test, $t(11) = -3.460$, $p = 0.005$. The effect size was large (Cohen's $d = 1.045$), indicating a substantial improvement in participants' mindfulness awareness as a result of the course.

Taken together, the statistical results demonstrate that the 5-day MBSR program produced significant positive effects across all three outcome variables—emotional well-being, depressive symptoms, and mindfulness awareness—with $p < 0.05$ for each dimension.

Table 4: Paired t-Test Results for Mindfulness Awareness (N = 12)

Mindfulness awareness	Mean (Standard Deviation)		Degrees of Freedom	t value	p	Effect Size
	pre-test	post-test				
	58.5000 (9.23924	67.2500 7.39932)	11	-3.460	0.005	1.045

Figure 4 presents a bar chart illustrating each participant's (A–L) mindfulness awareness scores before and after the MBSR intervention, along with their corresponding change scores. The chart shows improvements for 11 of the 12 participants, with Participant F demonstrating the largest increase (a 30-point gain from 39 to 69). Only Participant J exhibited a slight decrease of 2 points.

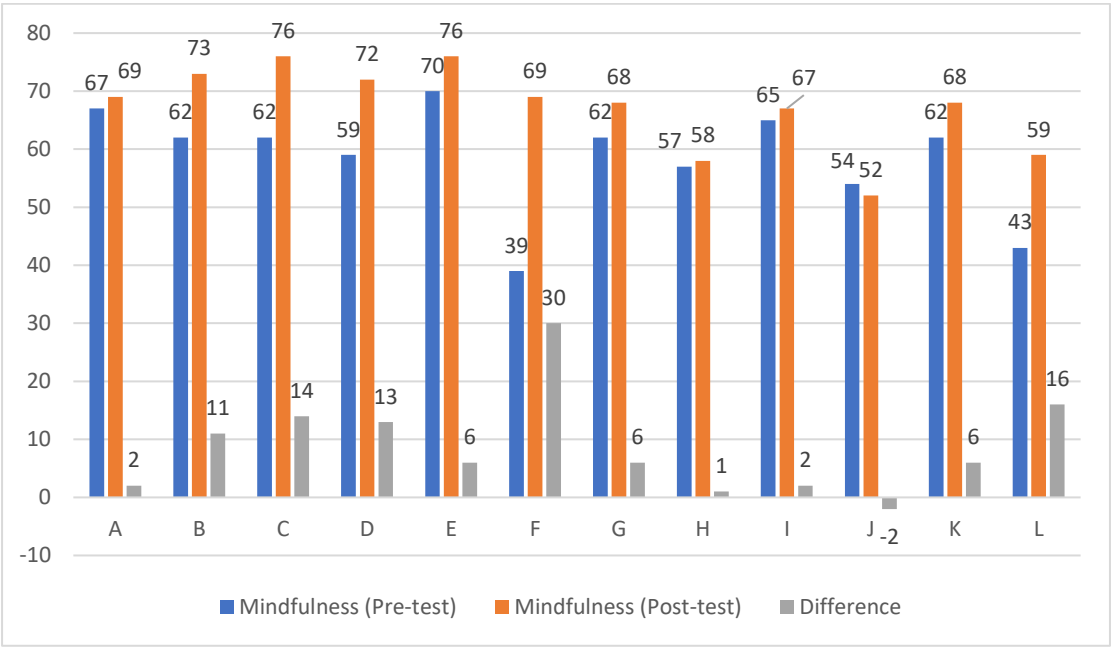

Figure 4: Mindfulness Awareness: Pre- and Post-Test Score Comparison

4.2 Comparison of Mindfulness Learning Experiences

The effect size for mindfulness awareness (Cohen's d = 1.045) was the largest among the three outcome variables, indicating a particularly strong impact of the MBSR intervention on this dimension. To further explore this pattern, participants were categorized based on their prior mindfulness experience: six participants had practiced mindfulness for one year or more, while the remaining six were novices. At pre-test, participants with prior mindfulness experience obtained a combined score of 365 (M = 60.83), compared to a total score of 337 (M = 56.16) among novices. This difference of approximately 4.67 points suggests that individuals with previous mindfulness exposure entered the program with somewhat higher baseline levels of mindfulness awareness (Figure 5).

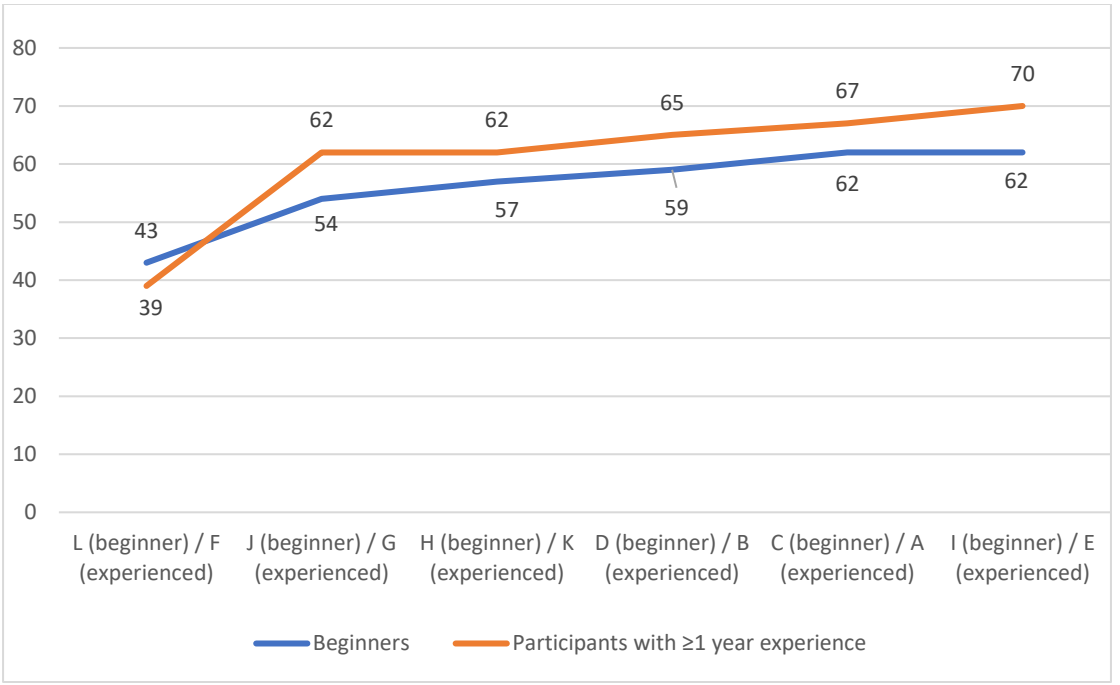

Figure 5: Comparison of Mindfulness Learning Experiences

In the post-test assessment (Figure 6), participants with prior mindfulness experience (n = 6) obtained a total mindfulness awareness score of 417 (M = 69.50), whereas novice participants (n = 6) achieved a total score of 390 (M = 65.00).

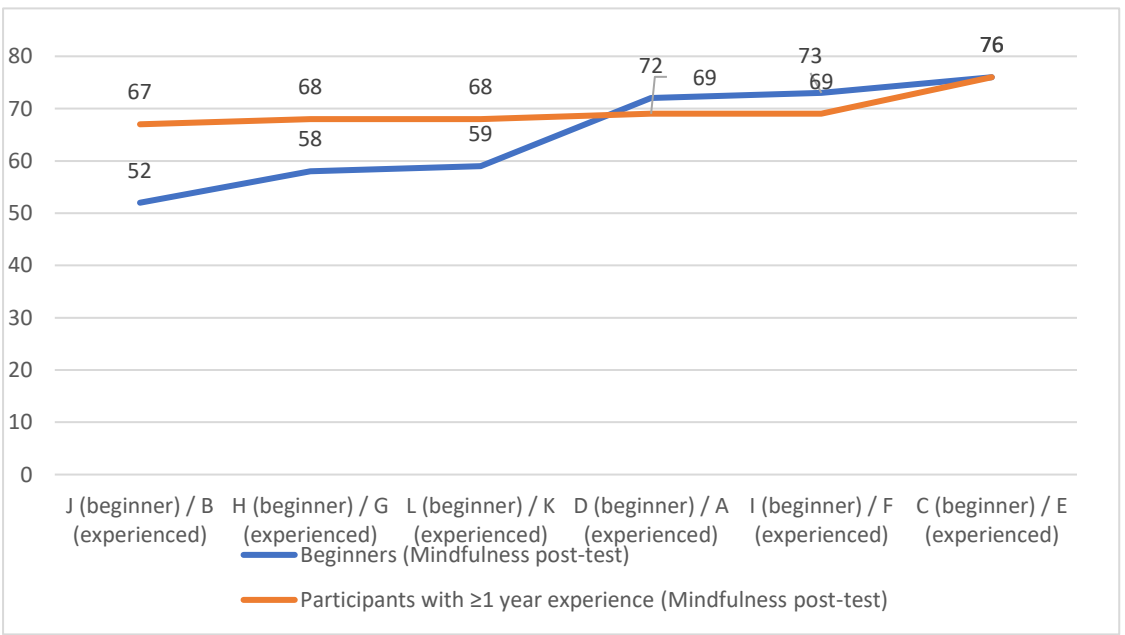

Figure 6: Post-Test Scores for Mindfulness Awareness

This represents an average difference of approximately 4.5 points in favor of the experienced group. The comparison of pre- and post-test means indicates that individuals with prior mindfulness exposure not only entered the program with higher baseline mindfulness awareness but also demonstrated greater gains following the intervention. These findings are consistent with previous neuropsychological research showing that long-term mindfulness practitioners exhibit greater activation in brain regions associated with attentional control and inhibitory processes, as well as reduced activation in areas linked to mind-wandering and emotional reactivity, compared with novices (Brefczynski-Lewis et al., 2007).

4.3 Follow-up Interview Analysis

4.3.1 Two-Month Open-ended Questionnaire Analysis

Four participants (A, B, C, and D) completed the open-ended questionnaire two months after the course (Table 5). All respondents reported ongoing interaction with group members and expressed interest in attending advanced mindfulness courses. Participants indicated continued engagement in mindfulness practices—such as body scans, mindful breathing, emotional awareness, and peer-based practice—which they described as helpful in daily life. Reported benefits included feeling more at ease, being able to return to the present moment, maintaining clarity about the arising and passing of thoughts, and sustaining healthy routines such as regular exercise. Several participants noted lifestyle changes, including increased bodily awareness, improved emotional stability, and greater focus, although one participant reported no noticeable change. In terms of self-perception and emotional experience, participants described feeling more relaxed, more hopeful, less self-critical, and better able to observe and manage emotional fluctuations, while one participant reported feeling generally unchanged.

Overall, the two-month follow-up indicated that all four participants maintained motivation to engage with peers and pursue advanced mindfulness courses, reflecting sustained practice and continued emotional regulation benefits. Although Participant D reported experiencing “no change” or feeling “as usual,” they acknowledged that mindfulness supported the maintenance of regular exercise habits and described mindfulness as being “like drinking water,” suggesting integration into daily routines. The participant’s consistently stable quantitative scores further indicate a high baseline level of functioning, making noticeable changes less evident but still subjectively positive.

Table 5: Open-Ended Questionnaire Responses (N=4)

Item	Question	Participant A	Participant B	Participant C	Participant D
1	Did you interact with group members after the course?	yes	yes	yes	yes
2	Would you join an advanced course?	yes	yes	yes	yes
3	Why did you join the MBSR course?	To live in the present and stay aware.	To reduce emotional ups and downs.	To learn how to relieve stress through mindfulness.	To understand mindfulness practice and its related theory and research.
4	Which MBSR unit did you like most, and why?	A day of silence, being with myself.	Body scan, mindful living, and choiceless awareness sitting.	Interactive practice with classmates.	Writing, because I can see the traces of my revisions.
5	How have you been practicing mindfulness over the past month?	I will listen to body scans and often remind myself of mindfulness.	I am aware of emotions, but I am still easy to get caught up in. This is a method of mental cultivation.	Always remind yourself that every breath is new, return to the present.	OK
6	What helped you the most after participating in the "Mindfulness Stress Reduction Therapy" course?	Slow down and feel more at ease.	There is always a way to bring yourself back to the present moment.	Breathing exercises, keeping thoughts clear about coming and going, and returning to the present moment.	Continue to maintain your exercise routine.
7	How has your lifestyle changed since participating in the "Mindfulness Stress Reduction Therapy" course?	I will be more aware of my body and current feelings, and eat more slowly, which I find very helpful.	Be more regular, focus more on yourself, and less likely to be soaked in an anxious and powerless emotional state.	Because of breathing exercises, whenever you are in a hurry, you can remind yourself to maintain emotional stability.	No
8	How has your perception of yourself changed since you participated in the "Mindfulness Stress Reduction Therapy" course?	I feel that living in the moment is a great gain, and I feel that I have made progress and relaxed.	Very good, every moment is a new beginning, and life is more hopeful.	The biggest change is the understanding of emotions; we can calmly and clearly see the ups and downs of emotions through practice, which allows me to treat people and things from different perspectives.	As usual.
9	How have your thoughts and emotional feelings changed after participating in the "Mindfulness Stress Reduction Therapy" course?	I think many things, just like what was said in the course, are nothing great, nothing great, and relatively relaxed.	I still feel anxious and helpless, but it has become mild. Be aware of it, but don't blame yourself.	I used to feel that I was an emotional person, but after taking the course, I knew that many people have emotional ups and downs, but because of different attitudes, they have different manifestations. So we can control emotions.	As usual
10	If you could describe how mindfulness relates to you, what would it be?	needed	Mind training tools, live in the moment.	A guideline	A relationship like drinking water.

4.3.2 Four-Month In-depth Interview Analysis

Three participants (C, D, and E) took part in the four-month in-depth interviews (Table 6). All reported continuing mindfulness practice, though with varying degrees of regularity. Participants identified different forms of benefit: C noted that learning to view people and situations from multiple perspectives reduced personal attachment, D described integrating mindful breathing into daily activities and consolidating prior knowledge through mindfulness, and E emphasized increased self-compassion, reduced self-criticism, and markedly lower stress. In terms of lifestyle changes, C reported greater present-moment focus and fewer distractions during tasks, D described flexible, location-independent exercise habits inspired by mindfulness, and E experienced reduced work-related anxiety. Regarding self-perception, C adopted a more optimistic outlook while acknowledging occasional under-preparation and managing stress through meditation; D perceived little change but viewed the course as aligned with personal life development; and E became more accepting and less influenced by others' opinions. Interpersonally, C experienced increased tolerance, while D and E reported no major changes. Emotional and cognitive shifts included improved perspective-taking (C), deeper appreciation of non-judgmental acceptance (D), and reduced regret and self-criticism during customer service interactions (E). Participants also distinguished between group and individual practice: C saw group discussions as a "mirror" for self-reflection, D preferred group interactions for broader perspectives, and E found ongoing group contact helpful for learning others' coping strategies.

The four-month follow-up demonstrated that participants continued to meaningfully integrate mindfulness into various aspects of their daily lives. Across interviews, individuals described relying on mindful breathing to navigate stressful moments, applying non-judgmental awareness to regulate emotional fluctuations, and adopting broader, more flexible perspectives when approaching interpersonal challenges or unexpected life events. Many participants reported cultivating greater self-compassion and reducing tendencies toward self-criticism, which contributed to an increased sense of psychological stability and resilience. In addition, they expressed feeling more grounded in the present moment, less reactive to external pressures, and more capable of observing emotions as transient experiences rather than sources of distress.

Taken together, these qualitative findings indicate that the benefits of the MBSR program extend beyond the immediate intervention period. Participants not only maintained their mindfulness habits but also demonstrated continued psychological growth, enhanced emotional regulation, and increased openness and acceptance over time. Importantly, these sustained effects appeared across individuals with and without prior mindfulness experience, underscoring the program's capacity to support both novice and experienced practitioners in developing long-term adaptive habits and perspectives.

Table 6: In-depth Interview Themes and Responses (N=3)

Item	Question	Participant C	Participant D	Participant E
1	How have you been practicing mindfulness in the past four months?	Sitting and breathing will be done twice to three times a week, for ten minutes at a time.	I have developed continuous practices such as mindful breathing and mindful eating at any time. I will continue to practice when my mother is sick or when I travel to Japan.	Keep doing sitting breathing exercises every morning.
2	What helped you the most after participating in the "Mindfulness Stress Reduction Therapy" course?	From the course group discussion, listening, and sharing, I learned to look at people, things, and things from different angles, and I am less attached. This has helped me a lot.	You can combine focused breathing in all aspects of your life. Through mindful learning, you can systematically integrate what you have learned before and echo it, and your concepts will be clearer.	It will be compassionate to oneself, accept the present, reduce judgment, and greatly reduce stress.
3	How has your lifestyle changed since you participated in the Mindfulness Stress Reduction Therapy course?	A clearer impression is that in the past, when swiping on my phone to find information, I would often be distracted by seeing other information and forget the original purpose.	Lifestyle has not changed. Inspired by the mindfulness class to focus on the present moment, establish exercise habits that can be adapted to local conditions, do tai chi at any time, and walk frontal.	Psychologically, due to changes in mindfulness classes, I was prone to anxiety habits at work, but now I can focus more on the present moment, anxiety is reduced, and I am less affected.
4	How has your perception of yourself changed since you participated in the Mindfulness Stress Reduction Therapy course?	Be more optimistic about how to deal with things However, because I am too optimistic, I neglect to prepare and cope, which becomes stress.	Life has not changed much I have seen the course of my life before taking the mindfulness class, and I feel that the result of the class will happen before taking the mindfulness class.	I used to care about other people's opinions, but now I accept and accept myself.
5	After participating in the "Mindfulness Stress Reduction Therapy" course, how do you handle interpersonal relationships?	From the perspective of learning courses to looking at things, there is also a greater tolerance for people.	When my physical and mental condition is fine, nothing has changed.	Nothing has changed, because I already feel that I have some distance from others, but I will not be at odds with others.
6	How have your thoughts and emotional feelings changed after participating in the "Mindfulness Stress Reduction Therapy" course?	When faced with emotions, I think of the teacher reminding me to look at the multi-faceted perspective of things in class, and things are presented in one aspect without good or bad	Because the same emotional events do not occur, I cannot compare. Emotional recovery and processing may have the basis of other similar courses before, and have its own adjustment mechanism, but the clear help is "non-judgmental".	You will be more able to focus on the present moment when working. When serving customers at work, they are less likely to regret and criticize themselves for not achieving perfection, and have learned to accept and tolerate. The biggest part is the improvement in the heart.
7	What is the difference between mindfulness stress reduction in group practice or group connection and individual practice?	Group practice is a different topic, and in group classes, discussion and sharing are like a mirror to see yourself. In personal practice, I can now perceive the fast and slow rhythm of walking and the combination of breathing, which is my own self-discovery.	It should be similar, but it is better when communicating and discussing in group classes, because it will increase the perspective of thinking and connect more ideas.	If you can keep in touch with the group, you will refer to other people's methods and apply them when practicing, which will be more helpful to you.

5. Discussion

5.1 Quantitative Statistical Findings

The quantitative findings of this study provide robust empirical evidence for the effectiveness of the 5-day intensive MBSR program in enhancing emotional well-being, reducing depressive symptoms, and improving mindfulness awareness. Across all three dimensions, participants demonstrated statistically significant improvements, with effect sizes ranging from medium (emotional well-being, d = 0.659) to large (depression, d = 0.834; mindfulness awareness, d = 1.045). These results highlight the substantial psychological benefits achievable even within short-term mindfulness interventions.

The findings align with a growing body of meta-analytic research supporting the positive effects of mindfulness-based interventions. Spijkerman et al. (2016), in a meta-analysis of 15 online mindfulness-based programs (N = 2,360), reported small but significant improvements in well-being, depression, and mindfulness. Although their effect sizes were smaller than those observed in the present study, differences in delivery format (online vs. in-person), program intensity, and participant engagement may explain the variation. Similarly, a comprehensive systematic review and meta-analysis conducted by Lin et al. (2024) on mindfulness programs in Taiwanese educational settings (26 studies, N = 2,279) identified moderate to large positive effects, further situating the current findings within established empirical trends.

The present study also contributes to the ongoing discussion regarding the optimal duration of MBSR interventions. Carmody and Baer's (2009) meta-analysis of 30 MBSR studies found no significant association between program length and effect size, suggesting that shorter or more intensive formats may yield outcomes comparable to the standard 8-week model. Our results support this proposition: the 5-day intensive program produced meaningful improvements across all measured outcomes, echoing earlier findings from Kabat-Zinn (1982), Speca et al. (2000), and others who have demonstrated the efficacy of condensed mindfulness interventions. This is particularly valuable for individuals who face time or logistical barriers to participating in longer programs, indicating that intensive MBSR formats may enhance accessibility without compromising effectiveness.

Additionally, participants with prior mindfulness experience exhibited higher pre- and post-test mindfulness awareness scores than novices. This pattern suggests that earlier engagement with mindfulness practices may strengthen foundational attentional and awareness capacities, facilitating deeper learning and potentially amplifying intervention benefits. This observation aligns with Dobkin's (2008) findings that experienced mindfulness practitioners often demonstrate greater self-care abilities, emotional flexibility, and openness to daily experiences within mindfulness-based programs. The quantitative results affirm both the immediate and substantial psychological benefits of the 5-day MBSR intervention, highlighting its effectiveness as a condensed yet impactful mindfulness training format.

5.2 Qualitative Interview Findings

The qualitative evidence gathered through the two-month open-ended questionnaires and four-month in-depth interviews provides rich insight into participants' lived experiences and reveals the sustained, delayed benefits of the MBSR program. Participants frequently described integrating core mindfulness principles—such as emotional awareness, acceptance, and non-judgment—into their everyday activities. These practices supported their ability to manage stress, regulate emotions, navigate interpersonal challenges, and cultivate a more grounded and compassionate relationship with themselves.

This progression reflects the developmental trajectory of mindfulness practice documented in the literature and outlines a four-stage model of mindfulness cultivation, beginning with initial familiarization, followed by the emergence of awareness, the discovery of a "mindful self," and ultimately the embodiment of mindfulness as a stable way of being. Consistent with this model, participants in the present study reported shifts from basic awareness to deeper internalization of mindfulness principles, including improved emotional clarity, greater self-acceptance, and increased cognitive flexibility.

The findings are also consistent with Hu et al. (2022) observations that participants in mindfulness programs commonly apply mindful awareness to daily routines, gradually transforming habitual patterns, alleviating emotional distress, and fostering more harmonious relationships with themselves and others. Over time, mindfulness transitions from a discrete practice into an integrated lifestyle, promoting inner calm, resilience, and well-being. In this study, participants' reflections at two and four months post-intervention clearly demonstrated such sustained effects. They described improved emotional regulation, increased compassion toward themselves and others, greater present-moment engagement, and a broader perspective on life's challenges. Notably, even participants who reported minimal immediate changes (e.g., Participant D) later acknowledged deeper conceptual shifts—particularly regarding non-judgment—suggesting that the impact of MBSR may unfold gradually, especially for those with prior experience.

Accordingly, the qualitative findings complement and reinforce the quantitative results, demonstrating that the benefits of the intensive MBSR program were not only immediate but also enduring, supporting continued psychological growth and adaptive functioning well beyond the intervention period.

6. Conclusion and Suggestions

6.1 Conclusion

6.1.1 Significant Efficacy of the 5-Day Intensive MBSR Program

Quantitative analyses demonstrated that the 5-day intensive MBSR program produced statistically significant improvements across all measured outcomes. Emotional well-being increased with a medium effect size, depressive symptoms decreased with a large effect size, and mindfulness awareness showed a large effect

size, indicating substantial gains. The qualitative findings further supported these results: participants reported integrating key mindfulness principles—such as emotional awareness, acceptance, and non-judgment—into daily life. They also described adopting more optimistic perspectives, improved emotional regulation, and enhanced coping with stressors.

Importantly, the follow-up interviews conducted two and four months after the intervention confirmed that these benefits were not only immediate but also sustained over time. The enduring impact of the intensive program suggests that short-term MBSR formats may effectively support psychological well-being for individuals who face logistical challenges in attending standard 8-week programs. These findings offer practical guidance for the promotion and wider adoption of condensed mindfulness interventions.

6.1.2 Enhanced Learning Benefits among Experienced Mindfulness Practitioners

Differences in pre- and post-test scores revealed that participants with prior mindfulness experience consistently demonstrated higher levels of mindfulness awareness compared with novices. This pattern suggests that foundational exposure to mindfulness may enhance receptivity to formal training, potentially enabling more efficient learning and deeper integration of mindfulness principles. This observation is consistent with Dobkin's (2008) findings, which highlight that individuals with prior mindfulness experience often exhibit greater self-care capacity, emotional flexibility, and attunement to daily experiences. These insights have implications for program design, indicating the value of considering participants' prior experience when structuring course content or providing differentiated guidance.

6.2 Suggestions

6.2.1 Increase Sample Size and Strengthen Longitudinal Tracking

A key limitation of the present study is the small sample size (N = 12), which constrains the generalizability and statistical power of the findings. Future research should recruit larger samples to enhance external validity and enable more rigorous inferential analyses. In addition, although qualitative insights at two and four months were valuable, the lack of quantitative follow-up assessments limited the ability to statistically evaluate long-term effects. Future studies may benefit from establishing agreements with organizers and offering incentives (e.g., rewards or reduced course fees) to ensure participant retention for scheduled follow-up surveys. This approach would allow for more robust tracking of delayed intervention outcomes.

6.2.2 Explore Additional Mindfulness-Related Outcomes

While this study focused on emotional well-being, depression, and mindfulness awareness, prior meta-analytic research suggests that mindfulness-based

interventions also positively influence other important psychological constructs, including resilience and creativity (Greenberg & Harris, 2012). Future research could extend the current work by examining the effects of intensive MBSR programs on these additional dimensions. Such expansion would contribute to a more comprehensive understanding of mindfulness's benefits and support broader evidence-based dissemination of MBSR practices.

6.2.3 Promote Practical Application and Early Educational Integration

Given the observed advantage among individuals with prior mindfulness experience, introducing mindfulness education at earlier developmental stages—such as in preschool, primary, secondary, and university settings—may help establish foundational skills that support emotional regulation and stress resilience throughout life. Early exposure to mindfulness concepts and techniques could enable individuals to better manage academic pressures, interpersonal difficulties, and future professional challenges. At a broader societal level, integrating mindfulness into educational and community settings may contribute to reducing mental health challenges and enhancing overall psychological well-being. These findings underscore the practical significance of promoting mindfulness as a preventive, developmental, and health-enhancing practice.

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