# The Role of Emotion Regulation in the Vicarious Trauma Risk Reduction among Psychotherapists

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**Abstract:** The relevance of the study is determined by the increasing risk of vicarious trauma among psychotherapists because of their high emotional and professional stress. The study explores the link between emotion regulation training and vicarious trauma risk, well-being, and professional functioning in psychotherapists. The study employed the methods of testing and questionnaire survey (Emotion Regulation Questionnaire (ERQ), Perceived Stress Scale (PSS), and Professional Quality of Life Scale (ProQOL)). The following statistical methods were also used: descriptive statistics, Shapiro-Wilk test, paired t-test, Wilcoxon test, effect coefficients, multiple regression analysis, 95% confidence intervals. The reliability of the instruments was tested using Cronbach α.

The intervention was associated with improvements in emotion regulation, stress reduction, and vicarious trauma symptoms (all $p < 0.001$). However, the absence of a control group precludes definitive causal attributions, as changes may reflect external factors (e.g., natural recovery, concurrent supervision). Despite this limitation, effect sizes (Cohen's $d = 0.55–0.70$) and 12-month stability suggest clinical promise warranting future RCTs. Changes remained stable over the year, but some indicators showed partial regression. The women demonstrated higher levels of well-being, while gender differences on other parameters were minimal ($p = 0.041$). Furthermore, findings are contextually bound to urban psychotherapists in Kyiv due to purposive sampling; generalizability to rural settings or distinct healthcare systems requires verification.

**Keywords:** Psychotherapeutic practice, professional well-being, awareness, psychological education, emotional resilience.

## 1. INTRODUCTION

The increasing incidence of vicarious trauma (VT) – defined as lasting emotional disruption from secondary exposure to clients' trauma [1] – among psychotherapists underscores the need for emotion regulation (ER) training. ER, the conscious modulation of emotional responses [2], may enhance professional effectiveness – therapists' ability to maintain both clinical competence and personal well-being [3]. In Ukraine's context, where therapists increasingly work with war-related trauma, these concepts require particular attention to collective trauma narratives and resource constraints.

Vicarious trauma among psychotherapists is a consequence of emotional involvement in the traumatic experience of their clients, which gradually leads to the transfer of psychological burden to the specialist [4]. Its manifestations include emotional exhaustion, cognitive overload, decreased motivation, and symptoms similar to post-traumatic stress disorder (PTSD). Intense empathic interaction is an important factor in the effectiveness of therapy, while posing a threat to the mental health of a specialist [5].

Emotion regulation is considered a key strategy for the prevention of vicarious trauma, as it helps to reduce the negative impact of traumatic content [6]. The ability to be aware of, model and adequately express emotions helps to maintain professional distance and resilience. Developing mindfulness, cognitive restructuring and emotional distancing skills can prevent excessive empathy and help to effectively cope with stress [7]. Systematic training in these strategies is an important element in supporting mental well-being and professional productivity. Timely identification of early signs of vicarious trauma and regular supervision with colleagues are important components of its prevention and averting of chronic emotional exhaustion [8].

The academic novelty of the study is determined by the comprehensive application of ERQ, PSS, and

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ProQOL methods to assess the dynamics of changes in the short and long run, including annual follow-up. A comparative analysis of gender differences in the dynamics of emotion regulation and vicarious trauma was conducted for the first time. Such research contributes to the expansion of existing models of understanding the professional activities of psychotherapists.

The aim is to explore the potential association between emotion regulation training and changes in vicarious trauma risk, emotional well-being, and professional functioning among psychotherapists. The aim involves the fulfilment of the following research objectives:

1. Establish the relationship between the level of emotion regulation and manifestations of vicarious trauma among psychotherapists;

2. Study the influence of individual characteristics of emotion regulation on the professional well-being of psychotherapists;

3. Assess the impact of the developed training programme on the development of emotion regulation skills among psychotherapists in the short and long run.

Research hypothesis: It was hypothesized that psychotherapists who undergo emotion regulation training would demonstrate improved emotional outcomes and reduced trauma-related symptoms over time, although the study design precludes definitive causal conclusions.

## 2. LITERATURE REVIEW

The analysis of the academic discourse on emotion regulation in the work of psychotherapists reveals both significant achievements and certain limitations. The study of Clarke *et al*. [9] and Brugnera *et al*. [10] reasonably emphasize the importance of emotion regulation for the mental well-being of psychotherapists, which is a strength of their studies, as it emphasizes its fundamental role in professional effectiveness. The research on stress [11] emphasizes its significant impact on the mental health of psychotherapists. The use of a universal PSS is an undeniable advantage. However, the insufficient consideration of specific professional stressors along with general factors makes us disagree with the authors. According to the authors of our study, insufficient attention to specific adaptation strategies when working with traumatized clients is a weakness. It significantly limits the practical application of the obtained results.

Ondrejková and Halamová [12] rightly emphasize compassion fatigue as a risk factor for vicarious trauma, which is their strength. Haeyen's [13] study demonstrates the potential benefit of cognitive strategies for reducing emotional burden, which is its strength. At the same time, limited analysis of contextual determinants of this phenomenon, such as organizational support and individual recovery strategies, is poorly studied. The lack of research on practical barriers to their adaptation in the professional activities of psychotherapists is a significant drawback of these studies.

Recent studies [14, 15] substantiate the role of empathy as a key risk factor for vicarious trauma, which is their strength. However, the lack of practical recommendations for maintaining professional distance without compromising empathic interaction is a weakness. Goldberg *et al*. [16], and Lalor and Khoshfetrat [17] confirm the short-term effectiveness of mindfulness techniques for reducing stress, which is their strength. At the same time, they didn't pay enough attention to the long-term effects of these techniques, which makes their integration into daily practice difficult.

Woodhams and Duran [18] propose self-compassion and boundary setting as strategies for protecting against secondary traumatization, emphasizing preventive approaches as a strength. However, the lack of sufficient empirical verification of their effectiveness in the real-world settings of psychotherapists makes it necessary to consider the obtained results with prudence. So, the significance of the existing studies is the emphasized importance of emotion regulation. At the same time, their limitations indicate the need for further research to effectively integrate theoretical knowledge into the practical activities of psychotherapists.

The intervention integrates cognitive-behavioral therapy (CBT), mindfulness-based stress reduction (MBSR), and dance-movement therapy (DMT) to address emotion regulation from multiple dimensions. CBT targets maladaptive thought patterns contributing to vicarious trauma, while MBSR enhances present-moment awareness to mitigate emotional exhaustion. DMT was included to facilitate somatic expression of stress, as embodied practices have shown efficacy in

reducing trauma symptoms. This tripartite approach aligns with recent calls for holistic interventions in psychotherapist well-being.

## 3. METHODOLOGY

### 3.1. Design

Figure **1** presents the procedure of the study. Based on it, this study can be defined as empirical and experimental. A design with three waves of data collection (pre-test, post-test, delayed measurement after 12 months) was used to assess the stability of the training effects.

The study employed a pre-post design with a 12-month follow-up to track changes in emotion regulation, stress, and vicarious trauma over time. While this design allows for the examination of changes within participants following the intervention, it's important to acknowledge that it does not include a randomized control group. This absence limits the capacity to definitively attribute observed effects solely to the intervention, as external factors or natural fluctuations could influence the results.

However, the decision to forgo a traditional control group was based on several considerations. Firstly, ethical considerations were paramount. The emotion regulation training was designed to potentially mitigate vicarious trauma and enhance the well-being of psychotherapists, a population facing inherent occupational stressors. Withholding a potentially beneficial intervention from a control group raised ethical concerns, prioritizing the opportunity for all participants to acquire adaptive coping skills.

Secondly, practical challenges were encountered in establishing a suitable control group within this specific professional demographic. Psychotherapists often demonstrate high intrinsic motivation for professional development, potentially leading to differential engagement or higher attrition rates within a control group denied access to relevant training. Despite the absence of a control group, the study design incorporates repeated measures across a 12-month period. This longitudinal approach enables the analysis of individual change trajectories and the assessment of the stability and consistency of observed effects over time. While not equivalent to a control group, this repeated measurement strategy provides a degree of control by allowing for the examination of changes relative to each participant's baseline, and the observation of whether changes are sustained or regress over time. The limitations of not including a

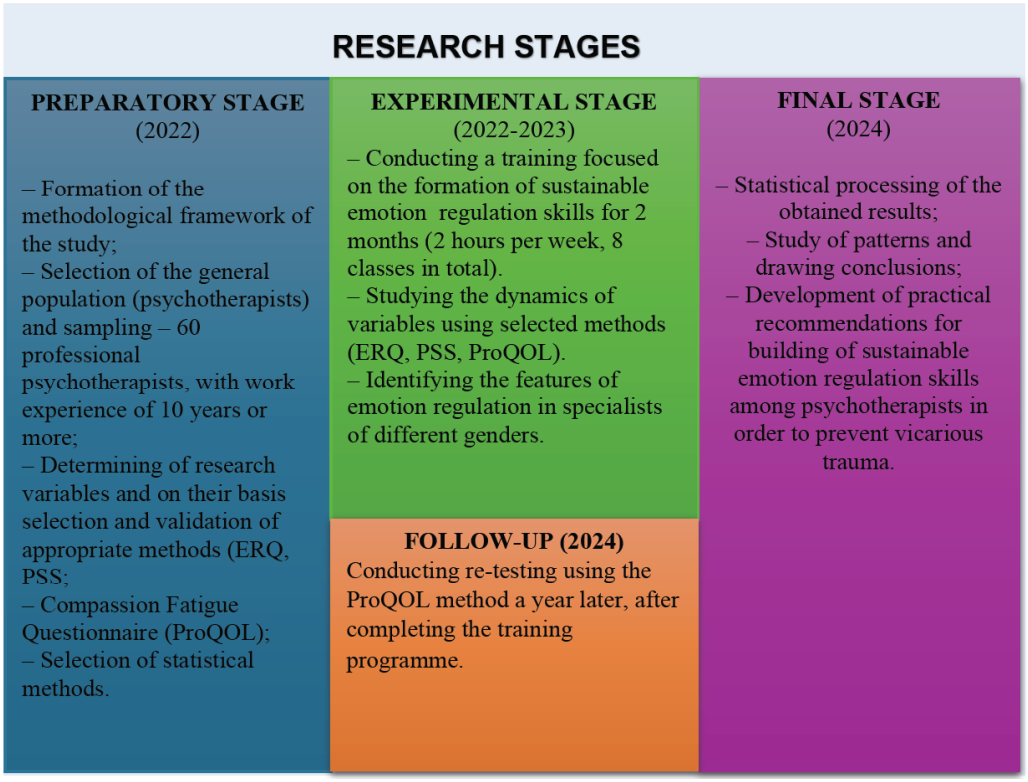


**Figure 1:** Research procedure.

Source: developed by the author.

**Table 1: Demographic and Professional Characteristics of Participants**

| Characteristic | Total (N=120) | Women (n=64) | Men (n=56) |
|---|---|---|---|
| Mean age (years ±SD) | 35.0 ± 4.8 | 35.2 ± 4.5 | 34.8 ± 5.1 |
| Mean experience (years ±SD) | 14.0 ± 3.3 | 13.8 ± 3.2 | 14.2 ± 3.5 |
| Primary work setting (%): | | | |
| - Crisis psychology | 45% | 65% | 50% |
| - PTSD therapy | 30% | 25% | 35% |
| - Social work | 25% | 10% | 15% |

Source: developed by the author.

control group are acknowledged, and their potential influence on the interpretation of findings is addressed in the Limitation section.

### 3.2. Participants

The study included 120 psychotherapists (64 women, 53.3%; 56 men, 46.7%) practicing in Kyiv. All participants held degrees in psychology, medicine, or social work, with ≥5 years of experience working with traumatized clients (mean = 14 years; range: 5–25 years). Key demographic and professional characteristics are summarized in Table **1**.

The sample size of 120 participants was selected based on practical and methodological considerations. Given the limited availability of qualified psychotherapists in Kyiv meeting our inclusion criteria (minimum 5 years' experience handling at least 10 trauma cases monthly), this number represented a feasible yet robust recruitment target. This approach aligns with sample sizes in comparable intervention studies that successfully measured therapist well-being outcomes. Furthermore, the sample meets the recommended minimum of 10 participants per predictor variable for our planned regression analyses examining gender, age, and professional experience effects.

Specialists were selected from psychotherapeutic centres, trade unions, and through specialized social networks. The sampling method was a purposive (non-probability) sample. The inclusion criterion was regular work with traumatic cases (at least 10 cases per month). Specialists with officially diagnosed mental disorders or those who had participated in similar trainings within the last six months did not participate in the study.

Among the female part of the sample (average experience 13.8 years), 65% worked in the field of crisis psychology, 25% in medical psychology. Men (average experience 14.2 years) mainly specialized in PTSD therapy (50%) and social work (35%). The majority of participants (70%) were engaged in individual therapy, the rest (30%) worked with groups. The average workload was 15-20 clients per week, with 80% of specialists receiving regular supervision 1-2 times a month. All respondents gave informed consent to participate in the study. The training part of the study, as well as the testing of participants, met the criteria of psychological ethics, academic integrity, lack of discrimination and had an exclusively research purpose. The training was aimed at developing skills for sustainable emotion regulation during the professional activities of psychotherapists using the methods of positive psychology and dance-movement therapy (DMT). The respondents had the opportunity to withdraw from the experiment at any stage without explaining the reasons. The participants were tested by teachers of the Department of Psychology, Faculty of Humanities, Philology and Economics at the State Higher Educational Institution Donbas State Pedagogical University.

The study was approved by the Research Ethics Committee of Donbas State Pedagogical University. All procedures complied with ethical standards for human subjects research, including the Declaration of Helsinki. Participants received detailed written and verbal information about the study objectives, procedures, and their rights. Informed consent was obtained prior to participation, and respondents were explicitly informed of their right to withdraw from the study at any stage without providing a reason or facing any consequences. No personal identifying data were collected, and confidentiality was fully maintained throughout the research process.

### 3.3. Intervention Content and Structure

The intervention was delivered over eight weekly group sessions, each lasting 90 minutes. It was

designed as a structured programme integrating techniques from cognitive-behavioural therapy (CBT), mindfulness-based stress reduction (MBSR), and dance-movement therapy (DMT), with the aim of enhancing emotion regulation in professional contexts.

Each session followed a consistent structure comprising three components. The first component was a short psychoeducational segment (15–20 minutes) introducing key theoretical aspects of emotion regulation, including cognitive reappraisal, emotional awareness, and the distinction between suppression and expression. The second component (40–50 minutes) focused on practical skills development through guided mindfulness practices (e.g., breath awareness, body scan, and present-moment focus), cognitive techniques (e.g., identification and reframing of automatic thoughts), and expressive movement tasks adapted from DMT, such as mirroring, grounding exercises, and symbolic gesture work. The final component (20–30 minutes) consisted of group reflection, allowing participants to share personal insights, discuss challenges, and explore applications in their clinical practice.

The training was manualised to ensure methodological consistency and was facilitated by licensed psychologists with expertise in emotion-focused approaches and somatic practices. To reinforce learning, participants received weekly homework assignments, which included mindfulness logs, reflective journaling, and application of newly acquired strategies in therapeutic settings. The training emphasised the cultivation of emotional self-awareness, professional boundaries, and psychological resilience. Its standardised format ensured that the intervention could be replicated and evaluated consistently across different participant groups. The combined CBT-MBSR-DMT model was selected based on three evidence-based rationales:

1. *CBT.* To restructure cognitive distortions about therapeutic responsibility.

2. *MBSR.* To cultivate non-reactive awareness of clients' traumatic material.

3. *DMT.* To release physiologically stored stress via movement, addressing limitations of purely verbal therapies. Sessions were sequenced to progress from cognitive restructuring (CBT) to embodied integration (DMT).

Figure **2** summarizes the core components and progression of the 8-session programme, with detailed techniques per session.

### 3.4. Data Collection

1. The study used the ERQ to assess participants' emotion regulation strategies. The instrument included 10 items measuring two main strategies: cognitive reappraisal (6 items) and emotional suppression (4 items). The results made it possible to analyse the relationship

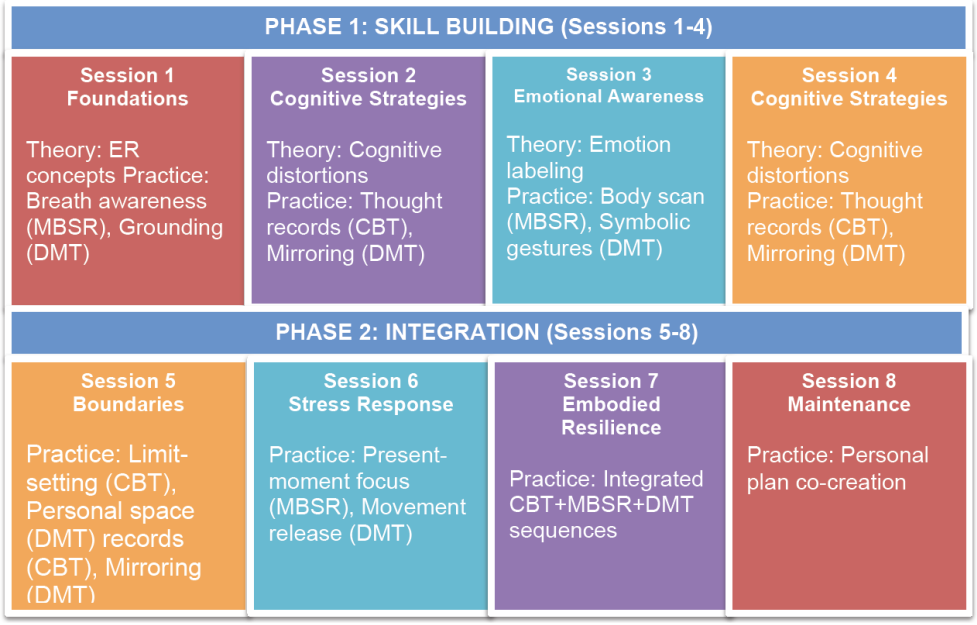


**Figure 2:** Structure of the 8-Session Emotion Regulation Training.

between emotion regulation styles and the level of professional burnout and vicarious trauma [19].

2. The 10-item PSS-10 was used to assess the participants' subjective level of stress. The instrument measured feelings of lack of control and stress over the past month on a 5-point Likert scale (0-never, 4-very often). The participants rated the frequency of stressful experiences, such as feelings of nervousness or loss of control [20].

3. The ProQOL Version 5 was also used to assess three key aspects of the participants' professional experience. The instrument contains 30 items divided into three subscales: secondary traumatic stress (10 items), professional burnout (10 items), and professional satisfaction (10 items). The participants rated the frequency of experiences over the past month on a 5-point Likert scale (1-never, 5-very often). The questionnaire measured the level of vicarious traumatization because of the work with clients, symptoms of emotional burnout, and the level of satisfaction with professional activities [21].

### 3.5. Analysis of Data

Data analysis followed a tiered approach:

1. Normality assessment (Shapiro-Wilk) guided test selection – paired t-tests for parametric data, Wilcoxon for non-parametric comparisons.

2. Effect sizes (Cohen's d/r) quantified magnitude beyond p-values.

**Table 2: Dynamics of Emotion Regulation, Stress Level, Vicarious Trauma Symptoms, Psychological Well-Being, and Professional Effectiveness before and after the Intervention in Women and Men (N = 120)**

| Variable | Measurement point | Gender | M | SD | Shapiro-Wilk (p) | Test and p-value | Effect size (Cohen's d for t-tests; r for Wilcoxon) |
|---|---|---|---|---|---|---|---|
| Emotion Regulation (ERQ) | Before | W | 85.2 | 12.5 | 0.15 | < 0.001 (t-test) | 0.60 |
| | After | | 92.1 | 11.8 | 0.21 | | |
| | Before | M | 82.5 | 13.1 | 0.08 | < 0.001 (t- test) | 0.55 |
| | After | | 89.5 | 12.3 | 0.12 | | |
| Stress Level (PSS) | Before | W | 18.7 | 4.3 | 0.03 | < 0.001 (Wilcoxon) | -0.70 |
| | After | | 15.1 | 3.9 | 0.05 | | |
| | Before | M | 17.5 | 4.8 | 0.06 | < 0.001 (Wilcoxon) | -0.65 |
| | After | | 14.2 | 4.1 | 0.09 | | |
| Vicarious Trauma Symptoms (ProQOL - Compass) | Before | W | 55.3 | 8.1 | 0.18 | < 0.001 (Wilcoxon) | -0.68 |
| | After | | 50.1 | 7.5 | 0.25 | | |
| | Before | N | 53.8 | 8.7 | 0.11 | < 0.001 (Wilcoxon) | -0.62 |
| | After | | 48.9 | 8.0 | 0.16 | | |
| Psychological Well-Being | Before | W | 95.8 | 10.2 | 0.28 | < 0.001 (t- test) | 0.65 |
| | After | | 102.5 | 9.8 | 0.35 | | |
| | Before | M | 93.1 | 11.0 | 0.19 | < 0.001 (t- test) | 0.60 |
| | After | | 100.2 | 10.5 | 0.23 | | |
| Professional Effectiveness (ProQOL - Satisfaction) | Before | W | 38.5 | 5.6 | 0.12 | < 0.001 (t- test) | 0.70 |
| | After | | 42.3 | 5.1 | 0.19 | | |
| | Before | M | 37.2 | 6.1 | 0.07 | < 0.001 (t- test) | 0.65 |
| | After | | 41.0 | 5.5 | 0.15 | | |

Source: developed by the author.

3. Multiple regression examined covariates (gender/age/experience). All instruments demonstrated good reliability (α=0.79–0.85).

### 3.6. Instruments

Online questionnaires in Google Forms were used to collect data, which provided a quick and convenient way to survey participants. The obtained data were exported to CSV format for further analysis and interpretation. The obtained data were processed in the IBM SPSS Statistics 27. The level of statistical significance was set at $p < 0.05$.

## 4. RESULTS

The dynamics of the main variables specified in the Methods section were studied at the beginning and end of the study. At this stage, a check was also carried out for the normality of the data distribution. All results are presented in Table **2**. A visualization of the mean values of the variables for each gender is proposed separately.

The obtained data indicate that the intervention caused statistically significant improvements in all key indicators. Stress levels (r = -0.65 .. -0.70) and vicarious trauma symptoms (r = -0.62..-0.68) decreased significantly. The Wilcoxon test was used for changes with deviations from normal distribution. The effect sizes range from medium to high, which confirms the practical significance of the intervention. Figure **3** shows the dynamics of the mean values of the measured variables.

Differences in responses to interventions may be explained by gender-specific emotional receptivity. Women often show greater willingness to explore and regulate emotional states and well-being. Men may be more likely to display more restrained emotional displays mediated by social norms. At the same time, the unified dynamics of stress reduction and vicarious trauma indicate the likely independence of the effectiveness of the intervention from gender. Table **3** illustrates the results of comparing groups of men and women on different scales.

Analysis of the table shows that women have slightly higher mean values for Emotion Regulation and Psychological Well-being, but these differences are statistically significant only for well-being. The level of stress and symptoms of vicarious trauma in women also exceed the male indicators, and the difference in symptoms of vicarious trauma is statistically significant. No significant differences between the genders were recorded in professional effectiveness. Finally, the long-term effect of the training was tested separately, the results of which are presented in Table **4**.

Both women and men show a statistically significant increase in compassion immediately after training. One year later, compassion decreases slightly compared to the “after” level, but remains higher than the initial level

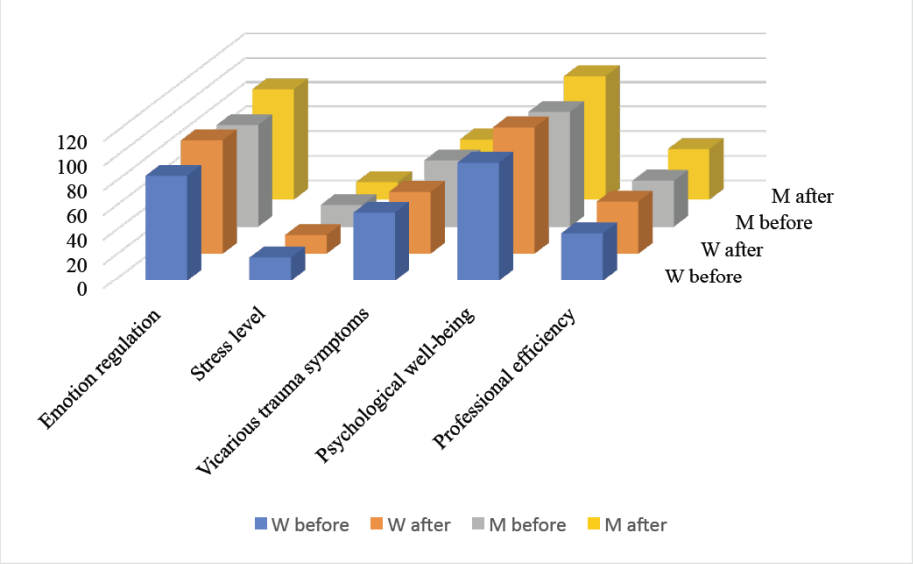


**Figure 3:** Mean values of emotional regulation, stress levels, vicarious trauma symptoms, psychological well-being, and professional effectiveness before and after the intervention in women and men (N = 120).

Source: developed by the author.

**Table 3: Results of Comparing Groups of Men and Women on Different Scales**

| Scale | Gender | Mean (M) | Standard deviation (SD) | Statistical criterion | Criterion value (t/U) | p-value | Normality (Shapiro-Wilk) |
|---|---|---|---|---|---|---|---|
| Emotion Regulation | W | 88.7 | 12.2 | t-test | 1.55 | 0.126 | Normal |
| | M | 85.3 | 12.8 | | | | Normal |
| Stress Level | W | 16.9 | 4.1 | Mann-Whitney U-test | 385.0 | 0.085 | Abnormal |
| | M | 15.8 | 4.5 | | | | Abnormal |
| Vicarious Trauma Symptoms | W | 52.7 | 7.8 | Mann-Whitney U-test | 350.5 | 0.032* | Abnormal |
| | M | 50.1 | 8.4 | | | | Abnormal |
| Psychological Well-Being | W | 99.2 | 10.0 | t- test | 2.10 | 0.041* | Normal |
| | M | 95.9 | 10.8 | | | | Normal |
| Professional Effectiveness (ProQOL - Satisfaction) | W | 40.4 | 5.4 | t- test | -0.88 | 0.383 | Normal |
| | M | 39.1 | 5.9 | | | | Normal |

*statistically significant difference between groups ($p < 0.05$).
Source: developed by the author.

**Table 4: Dynamics of ProQOL Indicators before, after and one Year after the Training**

| ProQOL Scale | Gender | Measurement Time | M | SD | Shapiro-Wilk (p) | Statistical Criterion (p) | Effect size (Cohen's d for t-tests; r for Wilcoxon) |
|---|---|---|---|---|---|---|---|
| Compassion | W | Before | 40.5 | 6.2 | 0.15 | | |
| | | After | 43.8 | 5.9 | 0.21 | Paired t-test (< 0.001) | 0.55 |
| | | A year after | 42.5 | 6.5 | 0.18 | Wilcoxon test (0.025) | 0.30 |
| | M | Before | 39.2 | 6.8 | 0.08 | | |
| | | After | 42.1 | 6.4 | 0.12 | Paired t-test (0.003) | 0.45 |
| | | A year after | 41.0 | 7.0 | 0.11 | Wilcoxon test (0.048) | 0.25 |
| Burnout | W | Before | 25.1 | 4.8 | 0.03 | | |
| | | After | 21.5 | 4.5 | 0.05 | Wilcoxon test (< 0.001) | -0.60 |
| | | A year after | 23.0 | 4.7 | 0.04 | Wilcoxon test (0.012) | 0.35 |
| | M | Before | 23.8 | 5.2 | 0.06 | | |
| | | After | 20.5 | 4.9 | 0.09 | Wilcoxon test (0.001) | -0.50 |
| | | A year after | 22.0 | 5.1 | 0.07 | Wilcoxon test (0.030) | 0.30 |
| Compassion Fatigue | W | Before | 28.3 | 5.5 | 0.18 | | |
| | | After | 24.9 | 5.2 | 0.25 | Wilcoxon test (< 0.001) | -0.58 |
| | | A year after | 26.5 | 5.4 | 0.20 | Wilcoxon test (0.018) | 0.32 |
| | M | Before | 27.1 | 5.9 | 0.11 | | |
| | | After | 23.8 | 5.6 | 0.16 | Wilcoxon test (0.002) | -0.50 |
| | | A year after | 25.5 | 5.8 | 0.13 | Wilcoxon test (0.035) | 0.28 |

Source: developed by the author.

**Table 5: Results of a Multiple Regression Analysis of the Effect of Gender, Age, and Experience on Performance Indicators**

| Dependent Variable | Predictor | Regression coefficient (β) | Standard error | t-value | p-value | 95% confidence interval for β | $R^2$ | F-statistic (p) |
|---|---|---|---|---|---|---|---|---|
| Emotion Regulation (After) | Gender | 2.50 | 1.80 | 1.39 | 0.170 | [-1.08, 6.08] | 0.15 (0.11) | 3.15 (0.031)* |
| | Age | 0.15 | 0.10 | 1.50 | 0.139 | [-0.05, 0.35] | | |
| | Length of service | 0.30 | 0.12 | 2.50 | 0.015* | [0.06, 0.54] | | |
| Stress Level (After) | Gender | -1.20 | 0.90 | -1.33 | 0.188 | [-3.00, 0.60] | 0.22 (0.18) | 5.20 (0.003)* |
| | Age | -0.08 | 0.05 | -1.60 | 0.115 | [-0.18, 0.02] | | |
| | Length of service | -0.25 | 0.07 | -3.57 | 0.001* | [-0.39, -0.11] | | |
| Vicarious Trauma Symptoms (After) | Gender | -1.80 | 1.50 | -1.20 | 0.235 | [-4.80, 1.20] | 0.18 (0.14) | 4.00 (0.011)* |
| | Age | -0.10 | 0.08 | -1.25 | 0.216 | [-0.26, 0.06] | | |
| | Length of service | -0.35 | 0.10 | -3.50 | 0.001* | [-0.55, -0.15] | | |
| Psychological Well-Being (After) | Gender | 3.00 | 2.00 | 1.50 | 0.139 | [-1.00, 7.00] | 0.12 (0.08) | 2.40 (0.075) |
| | Age | 0.20 | 0.12 | 1.67 | 0.100 | [-0.04, 0.44] | | |
| | Length of service | 0.40 | 0.15 | 2.67 | 0.009* | [0.10, 0.70] | | |
| Professional Effectiveness (After) | Gender | 1.50 | 1.20 | 1.25 | 0.216 | [-0.90, 3.90] | 0.25 (0.21) | 6.10 (0.001)* |
| | Age | 0.10 | 0.07 | 1.43 | 0.160 | [-0.04, 0.24] | | |
| | Length of service | 0.50 | 0.09 | 5.56 | < 0.001* | [0.32, 0.68] | | |

*statistically significant effect of the predictor or overall significance of the model at $p < 0.05$.
Source: developed by the author.

(statistically significant for both sexes). Effect sizes are medium when comparing “before” and “after”, and small when comparing “after” and “a year after”. Similar dynamics are observed for compassion fatigue: a significant decrease immediately after training with a subsequent partial return to baseline values “a year after”. Effect sizes are small and medium. Table **5** presents the results of a multiple regression analysis that assesses the combined effect of gender, age, and experience on various performance indicators.

The regression models showed significant effects for both emotion regulation ($F[3,116]=3.15$, $p=.031$, $adj.R^2=.11$) and professional effectiveness ($F[3,116]=6.10$, $p=.001$, $adj.R^2=.21$). Length of service emerged as a significant predictor for both outcomes (emotion regulation: $\beta=.30$, $p=.015$; professional effectiveness: $\beta=.50$, $p<.001$), indicating greater experience was associated with better outcomes after training when controlling for gender and age.

The regression model was based on theoretically grounded predictors: gender, age, and professional experience, which are commonly associated with emotional resilience. To address potential multicollinearity, variance inflation factors (VIF) were calculated for all predictors and remained within acceptable limits (VIF < 2.0), indicating that collinearity did not bias the results. Although regression analysis was not the primary method for testing the hypotheses, it served to explore additional relationships between background variables and post-intervention outcomes.

## 5. DISCUSSION

### 5.1. The Relationship between the Level of Emotion Regulation and Vicarious Trauma Manifestations

The results confirmed a statistically significant inverse relationship between the level of emotion regulation and vicarious trauma manifestations among psychotherapists ($p < 0.001$). Improved emotion

regulation skills reduced the risk of developing trauma symptoms. This is consistent with the findings of other researchers, for example, Singh and Hassard [22], which indicate the prominent role of self-regulation in reducing professional stress. At the same time, the findings of our study contradict the data obtained by Vazan and Behnammoradi [23]. The researchers suggest that emotion regulation has a limited effect on vicarious trauma because of strong external stressors. Such contradictory findings emphasize the need to consider the context of professional activity, in particular working conditions and client audience.

### 5.2. The Influence of Individual Characteristics of Emotion Regulation on Professional Well-Being

Analysis of the data showed that psychotherapists with high levels of self-regulation demonstrated greater resilience to stress, which contributed to their professional well-being. The results confirm the data of Mumtazah [24], where emotion regulation skills correlated with lower emotional exhaustion. At the same time, the study of Madazimova and Mambetalina [25] noted that the effectiveness of emotion regulation may decrease in cases of chronic overload. This factor can be partly explained by the regression of some indicators one year after the intervention in our study.

### 5.3. Assessment of the Impact of a Training Programme on the Development of Emotion Regulation Skills

The developed training programme showed high effectiveness in the short term ($p < 0.001$), and long-term results confirmed the stability of skills with partial regression. This result coincides with the findings of Wang *et al*. [26], who showed that intensive interventions provide short-term effectiveness. However, the long-term effect depends on the regular use of techniques. At the same time, Karakasidou *et al*. [27] emphasized that long-term programmes are advantageous because they minimize the risk of skill loss.

The observed improvements in stress reduction ($p < 0.001$) and sustained emotion regulation (Cohen's $d = 0.55–0.70$) support the synergistic value of combining CBT, MBSR, and DMT. While CBT likely drove immediate cognitive shifts, MBSR and DMT may have contributed to long-term resilience by targeting emotional and somatic stress pathways, respectively. This aligns with emerging frameworks advocating for 'whole-person' approaches in trauma-informed care.

While the results indicate statistically significant improvements in emotional regulation, stress, and trauma symptoms, the absence of a control group precludes definitive causal interpretations. Improvements may also be influenced by other factors such as time, professional development, or participant expectations. Therefore, these findings should be interpreted as preliminary. Future randomized controlled trials are needed to validate these outcomes and confirm their generalizability.

Although the present findings are encouraging, the absence of a control group limits the ability to make strong causal inferences. Observed improvements may reflect other variables, such as self-selection, maturation, or expectations. Therefore, results should be interpreted as correlational rather than causal. Future research with randomized controlled trials is necessary to confirm the efficacy of the intervention.

### 5.4. Connection with Earlier Studies

The value of the results obtained in the study is confirmed by their suitability for improving the practice of training psychotherapists, which meets the current challenges of the profession. Comparison with earlier studies demonstrated the predominant correspondence of the obtained results with similar recent ones. This reliably confirms the importance of emotion regulation for reducing professional stress [28], [29]. However, there are studies where variability of results can be identified depending on external circumstances, which requires further research [4], [30]. So, the results of our study confirm the hypothesis of the importance of developing emotion regulation for the professional well-being of psychotherapists and offer effective tools for their support.

### 5.5. Theoretical and Practical Significance of the Study

The theoretical significance of the study lies in exploring the mechanisms through which cognitive-behavioural and mindfulness-based strategies may complement each other in enhancing emotion regulation. While cognitive-behavioural techniques focus on identifying and restructuring maladaptive thought patterns, mindfulness-based practices promote non-reactive awareness and acceptance of emotional experiences. Their combined application may provide a synergistic effect, particularly in high-stress professional settings such as psychotherapy.

The practical significance of the study lies in its potential to inform the development of training programmes aimed at strengthening emotional

resilience among psychotherapists. However, the findings should be interpreted within the context of the study's methodological limitations. Given the non-randomised design and geographically limited sample, the results cannot be generalised to all support programmes or professional populations without further replication and validation in diverse contexts.

Women's greater well-being gains ($p = 0.041$) may reflect heightened emotional awareness enhancing mindfulness effects, compounded by systemic caregiving burdens in Ukraine's female-dominated mental health workforce. However, gender-neutral stress reduction suggests core intervention components work universally.

## 6. LIMITATIONS

The purposive sampling strategy, restricted to psychotherapists in Kyiv, constrains generalizability across cultural, geographical, and systemic dimensions. Culturally, findings reflect Ukrainian mental health practices and may not transfer to collectivist societies (e.g., Asian countries) with distinct emotion regulation norms. Geographically, therapists in rural settings – facing resource constraints absent in urban Kyiv – may experience altered intervention efficacy. Systemically, results may not generalize to privatized healthcare systems (e.g., the US), where workload incentives differ fundamentally from Ukraine's public institutions. The majority of participants were affiliated with public institutions, potentially introducing selection bias.

Additionally, reliance on self-reported measures (PSS, ProQOL) may introduce response bias, as participants could underreport stress or trauma symptoms due to social desirability effects – a documented limitation of burnout assessments. While this is partially mitigated by guaranteed anonymity, future studies should incorporate physiological or observational measures (e.g., cortisol levels, supervisor ratings) to triangulate findings.

Moreover, the study did not use random assignment or a control group, which affects internal validity and prevents strong causal conclusions. No power analysis was conducted to determine the required sample size, which may also influence the robustness of the statistical results. These methodological factors should be considered when interpreting the findings, and future studies should aim to include more diverse, randomized samples across multiple regions. It is necessary to take into account the limitations that arose because of the predominance of specialists from state institutions (60%) over the private sector (40%). However, the presented sample enables obtaining representative data on the features of emotion regulation in psychotherapists who regularly work with traumatic cases in a large city. It is also necessary to take into account the impossibility of generalizing the obtained results to specialists from other socio-cultural environments. The absence of control groups and the use of only self-report methods may also affect the final result. However, such an influence ranges within the margin of error. Furthermore, the study employed a one-group pretest-posttest design without a control group. This limits the ability to draw firm causal conclusions regarding the intervention's effectiveness. Although the longitudinal component (12-month follow-up) adds value, future research should incorporate randomized control groups to isolate the effects of the intervention from maturation, demand characteristics, and external influences. Due to the absence of a control group, causal conclusions should be made with caution.

## 7. RECOMMENDATIONS

It is recommended to implement regular trainings on the development of emotional regulation, integrating mindfulness-based approaches and cognitive-behavioural techniques in order to prevent vicarious trauma. Ensuring regular supervision is important for timely discussion of professional challenges and obtaining professional support. Developing self-reflection and self-awareness skills helps to increase psychological resilience to emotional burnout and secondary traumatization. Consideration of the individual needs of specialists, in particular their experience, temperament and professional context, is necessary for the effectiveness of preventive measures.

## 8. CONCLUSION

While the intervention demonstrated statistically and clinically significant improvements, the pre-post design without a control group necessitates caution in inferring causality. Maturation effects, self-selection bias, or concurrent workplace changes may partially explain observed effects. Nevertheless, the effect sizes and longitudinal stability justify controlled trials to isolate the intervention's active components. Until then, these findings should be interpreted as preliminary correlational evidence.

The results of the study are relevant for the development of effective programmes for emotion regulation, stress reduction, and prevention of traumatic disorders among specialists. The intervention led to a significant improvement in emotion regulation (women: M = 85.2 to 92.1; men: M = 82.5 to 89.5; $p < 0.001$). Reduced stress (women: M = 18.7 to 15.1; men: M = 17.5 to 14.2; $p < 0.001$). Vicarious trauma Symptoms (women: M = 55.3 to 50.1; men: M = 53.8 to 48.9; $p < 0.001$). Psychological well-being increased (women: M = 95.8 to 102.5; men: M = 93.1 to 100.2; $p < 0.001$). Professional effectiveness also improved (women: M = 38.5 to 42.3; men: M = 37.2 to 41.0; $p < 0.001$). The women showed a higher level of psychological well-being ($p = 0.041$). The positive changes were maintained after a year, although a partial return to baseline values was noted in some indicators. The results suggest that the intervention may be associated with positive changes in emotional regulation and well-being, although causal interpretations are limited by the study design. These preliminary findings provide a foundation for future controlled studies. The results can be applied in the training of psychologists, supervision of therapists, and the development of support programmes for professions with a high risk of emotional burnout. Future studies should assess the long-term impact of the intervention using randomized controlled designs across diverse geographic regions. Expanding the sample to include different cultural contexts will improve generalizability and reveal sociocultural patterns in outcomes.

Exploring individual variables such as temperament and resilience may clarify mechanisms that sustain change over time. Given the localized and non-randomized nature of the sample, caution is advised when attempting to generalize the findings to other populations or settings. Gender-sensitive analysis remains essential for understanding specific aspects of emotional well-being across professional subgroups.

## CONFLICTS OF INTEREST

The authors declare they have no conflict of interest.

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