

Mihael Černetič¹ in Marinka Černetič²

Mindfulness grows like a tree: Cultivating mindfulness in systemic therapy trainees and relations to psychological well-being and psychological distress³

Čuječnost raste kot drevo: Razvijanje čuječnosti pri študentih sistemske terapije ter povezave s psihičnim blagostanjem in duševno stisko

Abstract

Background

Research shows that the mindfulness of psychotherapists and psychotherapy trainees has important implications for their psychological well-being and psychotherapeutic work. It is therefore beneficial to cultivate mindfulness in psychotherapy trainees. However, little is known about the process of mindfulness development in psychotherapy trainees.

Objective

To investigate the development of mindfulness in systemic therapy trainees and the relationship with changes in their psychological well-being and psychological distress.

Methods

This mixed-method exploratory study utilized a naturalistic uncontrolled experimental design. Two groups of systemic therapy trainees

¹ Assist. Prof. Mihael Černetič, PhD, certified integrative psychotherapist (IIPA), supervisor (EUOCPS, IPSA), Sigmund Freud University Vienna – Ljubljana branch, Slovenia, and Pot naprej, Maribor, Slovenia.

² Marinka Černetič, certified integrative psychotherapist (EAIP, IPSA) in private practice, Maribor, Slovenia.

³ Correspondence concerning this paper should be addressed to Mihael Černetič, SFU Ljubljana, Trubarjeva cesta 65, SI-1000 Ljubljana, Slovenia, EU. E-mail: miha.cernetic@sfu-ljubljana.si.
We would like to thank Rok Černetič for preparing a computerized version of the thematic map.

($N = 26$) participated in a 7-month group mindfulness programme which emphasized cultivating mindfulness in daily life. Quantitative measures included trait, state, and process mindfulness, and psychological well-being and psychological distress (anxiety, depression, positive and negative affect, satisfaction with life, and quality of life). The qualitative part of the study included a thematic analysis of three diaries of mindfulness cultivation that covered the entire duration of the programme.

Results

Changes in mindfulness, psychological well-being, and psychological distress were observed in participants quantitatively and qualitatively. Trait, state and process mindfulness increased, with an increase of mindfulness still observed at the 7-month follow-up. Trait anxiety decreased, while positive affect increased. Increase in mindfulness was correlated with decrease of negative affect and the increase of positive affect. Thematic analysis showed the participants' rich formal and informal mindfulness practice, which was related to increased quality of life, development of personality strengths, emergence of positive changes in life, and a phenomenon named meta-mindfulness. Significant differences emerged between the first and the second half of the programme duration.

Conclusion

Mindfulness cultivation is related to improved quality of life in psychotherapy trainees and has implications for trainees' capacity for learning as well as for the quality of their work with clients. In addition, some important insights about mindfulness development emerged in the study: it is harder to develop mindful acceptance than mindful awareness; formal mindfulness practice is the basis for informal practice; meta-mindfulness is important for mindfulness to be self-sustained.

Key words: mindfulness, psychotherapy trainees, psychological well-being, psychological distress, mindfulness development, mindfulness practice, acceptance, meta-mindfulness

Povzetek

Izhodišča

Raziskave kažejo, da ima čuječnost psihoterapevtov in študentov psihoterapije pomembne implikacije za njihovo psihično blagostanje in psihoterapevtsko delo. Zato je koristno razvijanje čuječnosti pri študentih psihoterapije. Vendar pa je le malo znanega o procesu razvoja čuječnosti pri študentih psihoterapije.

Namen

Preučiti razvoj čuječnosti pri študentih sistemske terapije ter povezave s spremembami v njihovem psihičnem blagostanju in duševni stiski.

Metode

V kombinirani kvantitativno-kvalitativni eksploratorni raziskavi je bil uporabljen naturalistični nekontrolirani eksperimentalni raziskovalni načrt. Dve skupini študentov sistemske terapije ($N = 26$) se je udeležilo 7-mesečnega skupinskega čuječnostnega programa, ki je poudarjal razvijanje čuječnosti v vsakdanjem življenju. Kvantitativne mere so vključevale čuječnost kot potezo, kot stanje in kot proces ter psihično blagostanje in duševno stisko (anksioznost, depresivnost, pozitivni in negativni afekt, zadovoljstvo z življenjem, kvaliteto življenja). Kvalitativni del raziskave je obsegal tematsko analizo treh dnevnikov razvijanja čuječnosti za celotno trajanje programa.

Rezultati

Pri udeležencih so se pojavile kvantitativno in kvalitativno opažene spremembe čuječnosti, psihičnega blagostanja in duševne stiske. Čuječnost kot poteza, stanje in proces so se povečale in porast čuječnosti je bilo opaziti še po sedmih mesecih po zaključku programa. Potezna anksioznost se je zmanjšala, pozitivni afekt pa je narasel. Povečanje čuječnosti je koreliralo z zmanjšanjem negativnega afekta in povečanjem pozitivnega afekta. Tematska analiza je pokazala bogato formalno in neformalno čuječnostno prakso udeležencev, ki je bila povezana z zvišanjem kvalitete življenja, razvojem osebnostnih moči, nastopom pozitivnih sprememb v življenju ter s pojavom, imenovanim metačuječnost. Pokazale so se pomembne razlike med prvo in drugo polovico trajanja programa.

Zaključek

Gojenje čuječnosti je pri študentih psihoterapije povezano z izboljšano kakovostjo življenja in nosi implikacije za njihovo kapaciteto za učenje kakor tudi za kvaliteto njihovega dela s klienti. Poleg tega je raziskava dala nekatere pomembne vpoglede v razvoj čuječnosti: čuječno sprejemanje se težje razvije kakor čuječno zavedanje; formalna čuječnostna praksa predstavlja osnovo za neformalno prakso; metačuječnost je pomembna za samovzdrževanje čuječnosti.

Ključne besede: čuječnost, študenti psihoterapije, psihično blagostanje, duševna stiska, razvijanje čuječnosti, prakticiranje čuječnosti, sprejemanje, metačuječnost

1. Introduction

1.1. Mindfulness and Psychotherapy

Mindfulness, according to a classical Western psychological definition, is “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003, p. 145). Research has shown that as a psychological construct, mindfulness may be more parsimoniously defined as “non-judgmental, accepting awareness of one’s experience in the present moment” (Černetič, 2017, p. 49; see also Cardaciotto et al., 2008; Lindsay & Creswell, 2017). This refers to both internal (e.g., thoughts, emotions, bodily sensations) and external experience (e.g., other people, environment).

Mindfulness is regarded as an implicit common factor in psychotherapy (Martin, 1997). On a more explicit level, mindfulness can be beneficially integrated into the psychotherapy process (a) as a therapeutic philosophy, (b) as a tool for a therapist, and (c) in the form of specific therapeutic interventions (Černetič, 2011). Mindfulness practices offer psychotherapists a way to positively affect aspects of therapy that account for successful treatment (Davis & Hayes, 2011).

1.2. Therapist Mindfulness

The mindfulness of the therapist has several important implications for therapeutic work. Siegel (2010) claimed that therapist presence and establishing contact with the client are the most crucial therapeutic factors. In the study by Ryan and colleagues (2012), therapist dispositional mindfulness was positively correlated with the working alliance and with improvements in interpersonal functioning; the authors concluded that therapist dispositional mindfulness may be an important pre-treatment variable in psychotherapy outcome.

Mindfulness might be positively related to therapist empathy (W. D. Morgan & Morgan, 2005) and therapist ability of attunement to their clients (Bruce et al., 2010). According to Surrey (2005), mindfulness could help a therapist to maintain tripartite attention to themselves, to the client, and to the flow of the therapeutic relationship. In the study of O’Donovan and May (2007), findings from fifty eight therapists indicated that higher levels of mindfulness are associated with therapists’ cognitive and affective well-being, satisfaction at work and lower experiences of burnout; the authors concluded that attention to the levels of mindfulness in therapists is warranted.

A meta-analysis of 22 studies (Cooper et al., 2020) found that greater self-reported levels of mindfulness were associated with less empathic personal distress and greater perspective taking in counsellors and psychotherapists.

However, an analysis of pre-post data indicated that mindfulness-based training did not have a significant effect on empathy.

1.3. Mindfulness in Psychotherapy Trainees

Given the importance of therapist mindfulness, it is reasonable to think of mindfulness also as a variable in psychotherapy training. A recent study that examined the quality of life of psychotherapy trainees in a large sample (Heinonen et al., 2022) found that a good half of the trainees had a happy life (high life satisfaction without much stress) while every seventh trainee was clearly in distress (highly stressful life with little satisfaction). The study authors believed that stress and satisfaction of psychotherapy trainees affect both their ability to learn new skills as well as their performance in working with clients, and therefore these authors emphasize the importance of strengthening the quality of life of psychotherapy trainees, for which they see various possibilities at different levels.

In students of counselling, mindfulness has been associated with positive results regarding general well-being, self-awareness, counselling skills (e.g., greater attention to therapy process), therapy relationship (e.g., better attunement to the client and to oneself), and professional identity (Birnbaum, 2008; Newsome et al., 2006; Rybak & Russell-Chapin, 1998; Schure et al., 2008).

In a review of empirical qualitative studies, Christopher and Maris (2010) found that applying mindfulness practices to the training of counsellors and psychotherapists can enhance the physical and psychological well-being of trainees. The authors concluded that using mindfulness cultivation and training programmes can teach students strategies of self-care that can help prevent burnout, compassion fatigue and vicarious traumatisation.

In a controlled study by Rodriguez Vega and colleagues (2014), an 8-week mindfulness training significantly improved attentional control and trait anger in psychotherapists in training. Another controlled study (Shapiro et al., 2007) found that therapists in training who participated in a Mindfulness-Based Stress Reduction programme (MBSR; Kabat-Zinn, 1990) reported significant reduction in stress, negative affect, rumination, state and trait anxiety, and significant increases in positive affect and self-compassion. Participation in MBSR was associated with increases in mindfulness, and this change was related to several of the beneficial effects of MBSR participation.

In a double-blind, randomized controlled study by Grepmaier and colleagues (2007), psychotherapy trainees who practised mindfulness had better therapeutic outcomes with their patients, including (but not limited to) greater symptom reduction. However, in another randomized controlled study (Swift et al., 2017),

where psychotherapy trainees participated in a brief 5-week manualized mindfulness training programme, no differences in clients' ratings of psychotherapist presence or session effectiveness were observed between experimental and control conditions, even though participation in the mindfulness programme resulted in significantly greater improvements in state and trait mindfulness when compared to the control condition. Psychotherapy trainees themselves also reported a significantly higher level of presence in treatment sessions after attending mindfulness training compared to the control condition. Given that in the latter study, mindfulness training was significantly shorter in comparison to the former research, a dose effect might have been decisive. It might be that longer mindfulness training is needed to noticeably translate into such a complex domain as psychotherapy effectiveness.

In contrast to the outcomes of mindfulness of psychotherapy trainees, much less is presently known about the development of mindfulness itself in psychotherapy students. This topic, important for the design and delivery of mindfulness programmes for psychotherapy students, still lacks research.

1.4. **Aim of the Study**

The present study aimed to investigate the development of mindfulness in students of systemic therapy during a 7-month programme for cultivating mindfulness in daily life. Of interest were various aspects of mindfulness: trait mindfulness (Brown & Ryan, 2003; Cardaciotto et al., 2008), state mindfulness (Lau et al., 2006), and mindfulness as a process (Erisman & Roemer, 2012); awareness of experience and acceptance of experience; formal mindfulness practice (carrying out a practice according to a formal, predefined protocol) and informal mindfulness practice (practising mindfulness in everyday life situations). We also intended to investigate the relationship with changes in psychological well-being (Bradburn, 1969; Diener & Suh, 1997; Dodge et al., 2012; Pavot & Diener, 1993) and psychological distress (e.g., Winefield et al., 2012), such as changes in trait anxiety, depression, positive and negative affect, satisfaction with life, and quality of life. In addition, the study sought to explore other potentially relevant variables, such as the role of participants' previous experiences with mindfulness, and variables pertaining to the process of mindfulness development.

The research was a broad-focused, exploratory study, and thus a mixed-method methodology was chosen, incorporating both a quantitative and qualitative approach.

In this particular mindfulness training, mindfulness in daily life was central because the aim was to increase trait mindfulness in participants

(i.e., mindfulness as a general, integrated personal characteristic which would benefit an individual in various areas of professional and private life) rather than specific mindfulness skills (to be applied only in certain, predefined situations).

2. **Method**

2.1. **Participants**

Two training groups, from two consecutive years, totalling 26 (2 male) students of systemic therapy from a Slovenian psychotherapy training institute participated in the study. The average age of participants was 32 years (range 23 to 49). All members of both training groups opted to participate in this research.

On average, participants reported having only little previous experience with mindfulness ($M = 1.840$, $SD = 0.800$, $n = 25$; see the Materials section below), and they specified these experiences as the following: an eight-week mindfulness course, a weekend mindfulness workshop, formal and informal mindfulness practice, meditation, yoga, spirituality, autogenic training, reading about mindfulness or listening about it in lectures, exposure to mindfulness when travelling.

2.2. **Materials**

2.2.1. **Previous Experiences with Mindfulness**

Participants self-reported their previous mindfulness experiences with one quantitative and one qualitative questionnaire item. The former item was a 4-point Likert scale labelled "Previous experiences with mindfulness (circle what is applicable)" with verbal anchors "no", "yes, a little", "yes, medium", and "yes, a lot". The latter item was asking "Please, describe briefly your possible previous experiences with mindfulness" and was open-ended.

2.2.2. **Mindfulness Measures**

Four mindfulness self-report questionnaires were included in the study:

Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003). This unidimensional, 15-item questionnaire assesses dispositional (or trait) mindfulness. All items are inversely worded. MAAS is widely used for measuring mindfulness and has adequate reliability (Cronbach's α from .80 to .87). In the present study, the Slovenian version of the scale (Černetič, 2016) was used (Cronbach's $\alpha = .78$).

Philadelphia Mindfulness Scale (PHLMS; Cardaciotto et al., 2008). This is a 20-item self-report measure that assesses trait mindfulness with two subscales (each of them is comprised of 10 items), Awareness (Cronbach's $\alpha = .81$) and Acceptance (Cronbach's $\alpha = .85$). The Slovenian version of the scale (Černetič, 2016)

was used; Cronbach's alpha coefficients for the Awareness and the Acceptance subscales are .75 and .86, respectively.

Toronto Mindfulness Scale (TMS; Lau et al., 2006). A 13-item scale for assessing state mindfulness is comprised of two subscales, Curiosity (6 items) and Decentering (7 items). Values of the composite reliability index (a measure of internal consistency, analogous to the Cronbach's alpha coefficient) for the two subscales are .93 and .91, respectively. We translated the scale into Slovene for the purpose of this study. Cronbach's alpha coefficients of the Slovenian version were (at five consecutive time points, including follow-up) .81, .82, .79, .69, .86 for the Curiosity subscale and .53, .17, .62, .77, .69 for the Decentering subscale. At all five time points, TMS was applied immediately after a guided brief mindfulness practice.

Mindfulness Process Questionnaire (MPQ; Erisman & Roemer, 2012). The scale has 7 items in its final version (the authors' findings indicated that item number 7 should be excluded) and measures mindfulness as a process, in contrast to other mindfulness questionnaires which regard mindfulness more as an outcome. For example one item is: "When I feel myself getting caught up in my thoughts or feelings, I am able to bring my mind back to what's happening right now." Findings from Erisman and Roemer's study indicated that the MPQ captured a unique aspect of mindfulness, beyond what was already measured by existing mindfulness questionnaires. For the purpose of the present study, we translated the scale into Slovene. Cronbach's alpha coefficients for this measure were .71 in the original version and in the translated version .67 and .59 (at pre-test and post-test time points, respectively). A study by Flowers and Michael (2017) confirmed the original (English version) MPQ as a reliable instrument.

2.2.3. Measures of Psychological Well-Being and Psychological Distress

We used self-report measures of trait anxiety (STAI), depression (BDI), positive and negative affect (PANAS), satisfaction with life (SWLS), and quality of life (Q-LES-Q-SF).

State-Trait Anxiety Inventory, Trait Scale (STAI-X2; Spielberger et al., 1983). This commonly used measure of trait anxiety is comprised of 20 items. Internal consistency coefficients for the STAI have ranged from .86 to .95; test-retest reliability coefficients have ranged from .65 to .75 over a 2-month interval. In the present study, the Slovenian version of the measure (Lamovec, 1988) was used, and Cronbach's alphas on our data were .92 and .94 (at pre-test and post-test time points, respectively).

Beck Depression Inventory (BDI; Beck et al., 1961). This frequently used inventory with 21 items measures characteristic attitudes and symptoms of depression. Internal consistency of the scale ranges from .73 to .92 with a mean of .86

(Beck et al., 1988). In the present study, the Slovenian, 20-item version of the measure (Lamovec, 1988) was used (hereafter termed BDI-20 in the present article), and Cronbach's alphas on our data were .83 and .82 (at pre-test and post-test time points, respectively).

Positive and Negative Affect Schedule (PANAS; Watson et al., 1988). This is a questionnaire that consists of two 10-item scales to measure positive and negative affect. Cronbach's alphas for the positive affect scale range from .86 to .90, and for the negative affect scale from .84 to .87. The reliability of the scales is unaffected by the time instructions used. For the purpose of our study we translated the questionnaire into Slovene. Cronbach's alpha coefficients of the translated version were (for the first and the second time point, respectively) .84 and .87 (positive affect items), and .89 and .92 (negative affect items). The time frame at both pre-test and post-test was "last month".

Satisfaction With Life Scale (SWLS; Diener et al., 1985). The SWLS is a short, 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life. Internal consistency of the scale (Cronbach's alpha) is .87, and test-retest correlation is .82 across a two-month time period. We translated the scale into Slovene for the present study, and Cronbach's alphas of this version were .74 and .77 (for the first and the second time point, respectively).

Quality of Life Enjoyment and Satisfaction Questionnaire – Short Form (Q-LES-Q-SF; Endicott et al., 1993). This 16-item questionnaire (which is the "General activities", or GA, subscale of the long-form Q-LES-Q) captures life satisfaction over the past week. The last two items are not included in the total score but are standalone items. Reliability of the English version Q-LES-Q-SF, as reported in a review of peer-reviewed literature (Riendeau et al., 2018), ranges from .84 to .90 (internal consistency – Cronbach's alpha) and from .74 to .86 (test-retest reliability). For the purpose of the present study we translated the measure into Slovene. Cronbach's alpha coefficients of the translated version were .74 and .77 at pre-test and post-test time points, respectively.

2.2.4. Mindfulness Diary

As part of the mindfulness programme, participants were expected to write a daily diary of their personal cultivation of mindfulness. They were instructed to include data about (a) practices they did (e.g., formal/informal type of practice, which practice, approximate duration) and in what circumstances, (b) what were they experiencing during and after the practice (thoughts, feelings, physical sensations), (c) any problems related with mindfulness practice, (d) observations and reflections about the outcomes of mindfulness in their life and about the influences of mindfulness practice on their personal process.

Only three participants (all female) submitted complete diaries (covering the whole duration of the programme), and all three were included in the analysis. In total, they contained 245 pages of text, or 78,386 words.

2.3. Procedure

2.3.1. Research Design

The study was an uncontrolled naturalistic experiment, with quantitative and qualitative assessment of dependent variables.

2.3.2. Mindfulness Intervention

The mindfulness programme “Living Mindfully”, which was part of the participants’ psychotherapy training requirements, lasted for 7 months (from November till June) and included 14 biweekly group sessions of 135 minutes each. Compared to more traditional mindfulness programmes, an emphasis in this intervention was on mindfulness in daily life and on informal mindfulness practice. Each group session included: (a) guided formal mindfulness practices, (b) ideas and discussions on practicing mindfulness informally in relation to some aspect of life (e.g., pleasant activities, interpersonal relationships, work, purpose, fear and anxiety, time management, nature, mindful attitude to thoughts), and (c) sharing experiences in a group. In addition to attending group sessions, participants were required to do at least one formal and one informal mindfulness practice daily. The programme was led by a psychologist with more than five years of experience in mindfulness practice, teaching, and research (the first author of this paper). Additionally, in Spring, study participants took part in a weekend intensive mindfulness workshop which was also a part of their training requirements and was led by another qualified professional.

2.3.3. Data Collection

The two main time points of data collection (i.e., pre-test and post-test) were at the beginning and at the end of the mindfulness intervention. (At both time points, collecting data spanned roughly evenly two consecutive sessions of the programme to minimize the interference of the research with the flow of the intervention and to avoid exhausting the participants’ motivation.) The TMS was administered at two additional, intermediate occasions so that the four time points for collecting TMS data were spaced approximately every 10 weeks. For one of the two participating training groups, follow-up data was obtained at 7 months after the end of the intervention.

2.3.4. Data Analysis

We analyzed quantitative data with the PSPP and JASP software.

For the analysis of qualitative data we used the QDA Miner Lite software. We chose a methodological approach called thematic analysis which is used in

psychological (see Braun & Clarke, 2006) and psychotherapeutic (see McLeod, 2011) research.

2.3.5. Research Ethics

Informed consent was obtained from all research participants before they took part in the study. The research was conducted in accordance with the research ethics guidelines valid in our research institutions.

3. Results

3.1. Analyses of Quantitative Data

3.1.1. Changes in Different Aspects of Mindfulness

As shown in Table 1, a considerable increase in trait mindfulness was observed at the end of the mindfulness programme and was maintained at follow-up, as indicated by the MAAS score (only pre-post data was obtained for this scale) and the Awareness subscale of the PHLMS. The other PHLMS subscale (Acceptance) showed an increase at post-test that was close to statistical significance.

In addition, a continuous increase of state mindfulness during the programme was observed, as indicated by the Curiosity subscale (and partly also by the Decentering subscale) of the TMS.

Mindfulness as a mental process increased significantly during the intervention as well.

Table 1. Trait Mindfulness, State Mindfulness, and Mindfulness as a Process at Different Time Points During the Mindfulness Programme.

	<i>n</i>	Data collection time points					<i>p</i>	<i>d/ω</i> ²
		start of the programme	intermedi-ate point 1	intermedi-ate point 2	end of the programme	7-month follow-up		
<i>Trait mindfulness</i>								
MAAS	22	3.55			4.24		.000	1.365
PHLMS								
Awareness	22	33.50			39.41		.000	1.115
	6	31.83/**			40.00**	37.17*	.003	<u>.608</u>
Acceptance	22	35.59			37.64		.108	0.358
	6	36.83			40.83	38.33	.190	<u>.130</u>
<i>State mindfulness</i>								
TMS								
Curiosity	17	11.88/**	14.82	15.94*	16.82**		.005	<u>.182</u>
	6	13.83	12.67	13.17	15.83	16.17	.277	<u>.057</u>
Decentering	17	16.88*	19.88*	19.41	18.35		.036^a	<u>.131</u>
	6	17.67	19.17	17.63	16.33	19.17	.277	<u>.057</u>
<i>Mindfulness as a process</i>								
MPQ	23	23.61			25.13		.022	0.515

Notes. *d* = Cohen's *d* measure of effect size (shown where not underlined); ω^2 = omega-squared measure of effect size (shown where underlined); MAAS = Mindful Attention Awareness Scale; PHLMS = Philadelphia Mindfulness Scale; TMS = Toronto Mindfulness Scale; MPQ = Mindfulness Process Questionnaire.

^a Corrected value (Huynh-Feldt) is shown due to nonsphericity of data.

* Difference between the two marked values is statistically significant at the level of 5%.

** Difference between the two marked values is statistically significant at the level of 1%.

Otherwise, statistical significance at the level of at least 5% is marked with boldface.

3.1.2. Changes in Indicators of Psychological Well-Being and Psychological Distress

As shown in Table 2, trait anxiety decreased during the mindfulness programme while positive affect increased.

In addition, a decrease in negative affect and an increase in satisfaction with life came close to statistical significance.

Table 2. Indicators of Psychological Well-Being and Psychological Distress at the Beginning of the Mindfulness Programme, at the End of the Programme, and at Follow-Up.

	<i>n</i>	Data collection time points			<i>p</i>	<i>d/ω</i> ²
		start of the programme	end of the programme	7-month follow-up		
<i>Anxiety</i>						
STAI-X2	22	40.50	36.57		.010	0.599
<i>Depression</i>						
BDI-20	22	7.82	6.41		.325 ^a	0.215
<i>Positive and negative affect</i>						
PANAS						
Positive affect	22	34.04	36.91		.018	0.544
	6	33.50	38.33	33.67	.447	<u>.000</u>
Negative affect	22	24.28	21.52		.146	0.322
	6	20.17	18.67	23.33	.289	<u>.059</u>
<i>Quality of life</i>						
SWLS	23	22.96	24.89		.208	0.270
	7	25.43	27.00	27.29	.312	<u>.037</u>
Q-LES-Q-SF	23	49.57	51.30		.594	0.113
	7	48.57	52.71	51.71	.517	<u>.000</u>

Notes. *d* = Cohen's *d* measure of effect size (shown where not underlined); ω^2 = omega-squared measure of effect size (shown where underlined); STAI-X2 = State-Trait Anxiety Inventory, trait scale; BDI-20 = Beck Depression Inventory; PANAS = Positive and Negative Affect Schedule; SWLS = Satisfaction With Life Scale; Q-LES-Q-SF = Quality of Life Enjoyment and Satisfaction Questionnaire – Short Form.

^a Result of the Shapiro–Wilk test of normality is *p* = .056.

Statistical significance at the level of at least 5% is marked with boldface.

3.1.3. Correlations Between Changes

Table 3. Bivariate Correlations (Pearson's *r*) Between Pre-Post Changes During the Mindfulness Programme.

	MAAS	PHLMS Awareness	PHLMS Acceptance	MPQ	TMS Curiosity	TMS Decentering	STAI-X2	BDI-20	PANAS Positive affect	PANAS Negative affect	SWLS
PHLMS Awareness	.252	—									
PHLMS Acceptance	.433*	.511*	—								
MPQ	-.200	-.040	-.124	—							
TMS Curiosity	.065	.140	-.234	.439*	—						
TMS Decentering	-.548*	-.211	-.094	.318	.033	—					
STAI-X2	-.309	-.404	-.415	.035	.192	-.085	—				
BDI-20	-.078	-.252	-.212	-.134	.366	.051	.695***	—			
PANAS Positive affect	-.071	.202	.132	.445*	-.055	.100	-.653***	-.813***	—		
PANAS Negative affect	-.154	-.472*	-.584**	-.273	.040	-.129	.655***	.444*	-.382	—	
SWLS	-.159	-.038	.022	.701***	.225	.140	-.060	-.146	.384	-.392	—
Q-LES-Q-SF	.142	.096	.147	.563**	-.099	-.058	-.273	-.375	.538*	-.506*	.668***

Notes. MAAS = Mindful Attention Awareness Scale; PHLMS = Philadelphia Mindfulness Scale; TMS = Toronto Mindfulness Scale; MPQ = Mindfulness Process Questionnaire; STAI-X2 = State-Trait Anxiety Inventory, trait scale; BDI-20 = Beck Depression Inventory; PANAS = Positive and Negative Affect Schedule; SWLS = Satisfaction With Life Scale; Q-LES-Q-SF = Quality of Life Enjoyment and Satisfaction Questionnaire – Short Form.

Statistically significant correlations are marked with bold typeface.

* $p < .05$, ** $p < .01$, *** $p < .001$.

We also calculated a correlation matrix for pre-post changes in the study variables which is shown in Table 3.

With regard to mindfulness variables, changes of the acceptance mindfulness facet (PHLMS-Acceptance) correlated positively with changes of the awareness facet (PHLMS-Awareness and MAAS). Surprisingly, a component of state mindfulness (TMS-Decentering) correlated negatively with trait mindfulness measured by MAAS.

Changes in variables of psychological well-being and psychological distress (trait anxiety, depression, positive and negative affect) were highly correlated between each other in expected directions. In addition, satisfaction with life (SWLS) correlated highly with quality of life measured by the Q-LES-Q-SF. There were also medium-sized correlations (in the expected directions) of the Q-LES-Q-SF with positive affect and negative affect.

What changes in psychological well-being and psychological distress of the psychotherapy trainees occurred when their mindfulness increased? As shown in Table 3, an increase in both facets of mindfulness (measured by PHLMS) was associated with a decrease in negative affect, while positive affect increased in correlation with increased mindfulness as a process. In addition, the increase of positive affect was associated with the increase of satisfaction with life (SWLS) and the quality of life (Q-LES-Q-SF).

3.1.4. The Role of Previous Experiences with Mindfulness

To elucidate the role of previous experiences with mindfulness we ran a series of analyses of covariance (ANCOVAs). This procedure enables a statistical control for other factors, known as covariates.

When pre-post trait mindfulness data were accompanied by previous mindfulness experiences as a covariate, the pre-post change remained statistically significant ($p < .05$) for all included measures of trait mindfulness (MAAS and both subscales of PHLMS) and for mindfulness as a process (MPQ), but not for state mindfulness (both TMS subscales). However, the covariate itself (i.e., the between-subjects effect) was statistically significantly related only to the Acceptance subscale of PHLMS ($p = .009$). This means that previous experiences with mindfulness did not have a significant role in trait and process mindfulness changes observed during the mindfulness programme, though there was a significant relationship between previous mindfulness experiences and the acceptance facet of mindfulness.

3.2. Analyses of Qualitative Data
3.2.1. Themes and Subthemes

As shown in Table 4, thematic analysis resulted in 1,904 coded segments of text, categorized in 27 themes and 52 subthemes (specific aspects of themes) in 6 thematic areas: (a) formal mindfulness practice, (b) informal mindfulness practice, (c) general helpful factors for mindfulness, (d) effects of experiential acceptance, (e) effects of experiential awareness, and (f) meta-mindfulness.

In the process of coding and categorization it became clear that the point of theoretical saturation had most probably been reached. It was not likely that subjecting additional text to the analysis would contribute significantly to the system of themes and subthemes that had emerged in the process of analysis.

On the basis of a thematic system that emerged in the thematic analysis, we created a thematic map (see Figure 1) where thematic elements (thematic areas, themes, subthemes) and their interrelationships (the results of what in the grounded theory approach to qualitative research is known as axial coding; Strauss & Corbin, 1990) are presented visually using a tree as a metaphor.

Table 4. Results of Thematic Analysis of Mindfulness Diaries.

Theme	Subtheme	Coded text example ^a (participant code in parentheses)		Number of CST ^b (%)	
		First period of the programme (Period 1)	Second period of the programme (Period 2)	Period 1	Period 2
Thematic area: Formal mindfulness practice	The content of awareness during formal practice			336 (40.0)	323 (30.3)
	Thoughts	"I had a lot of thoughts and stories that were quite old. How I failed my driving test for the first time, and how it was when I was pregnant ..." (Beti)	"When I did the Three-Minute Breathing Space exercise after lunch, I had loads of thoughts." (Beti)	1 (0.1)	8 (0.8)
	Emotions and related psychological experience	—	"I was angry with myself, disappointed, the feeling of inferiority and the inner critic were very strong." (Iris)	0 (0.0)	24 (2.3)
	Body sensations	"At first I felt that I was breathing only with my stomach and my chest was completely still. That made me a little nervous, then I breathed in with my chest and it was fine." (Beti)	"Then I turned my attention back to my body and again the strongest heartbeat was there. The next thing I felt was a hard finger that I was holding with one hand." (Beti)	8 (1.0)	34 (3.2)
Intentional direction of attention during formal practice	Other	"Then I focused back on the sounds and listened to how the air conditioner hums and how it stops a little and then works again with all its power ..." (Beti)	"I especially liked the moment when I could completely merge with the water, the experience was as if it was flowing through me and I was a part of it and that I was a part of everything around me." (Iris)	1 (0.1)	3 (0.3)
	Body	"I was able to focus on my physical and mental sensations and observe them." (Iris)	"That's why I relaxed all my facial muscles and also my eyes, and that's how my thoughts went." (Beti)	1 (0.1)	1 (0.1)
	Breathing	"Then I focused on breathing and completely lost myself in it." (Beti)	"I just tried to watch both of them, focusing on my breathing." (Iris)	1 (0.1)	7 (0.7)
	Other	"At the end of the exercise, I shifted my attention to monitoring what was happening around me." (Iris)	"During the exercise, I visualized a deep, calm, dark lake, the surface of which is rough, but the depth is calm and quiet." (Iris)	1 (0.1)	1 (0.1)
Difficulties in formal mindfulness practice	Disturbances from within	"As I was facing a family meeting that I felt aversion to, there were very heavy emotions of sadness, resistance and turmoil." (Iris)	"Meanwhile, my mind was wandering everywhere – to work, home, to the current situation. The thoughts were insanely intense all weekend, I couldn't push them away or silence them." (Lora)	64 (7.6)	38 (3.6)
	Disturbances from the outside	"Then the phone rang." (Beti)	"Then I concentrated on breathing and again from the right side in the background I listened to the hum of the air conditioner, which this time was really disturbing me." (Beti)	21 (2.5)	2 (0.2)
	Other disturbances and incapacibilities	"Meditation or mindfulness makes me sleepy in the evening." (Iris)	"I realized that since I've been home, I haven't been doing formal exercises at all. I don't even take the time." (Beti)	14 (1.7)	14 (1.3)
What helps in doing a formal exercise	Directing attention	"Thoughts came to me immediately, which I then drove away with breathing. I shifted my attention to breathing." (Beti)	"The river metaphor helps me the most." (Lora)	5 (0.6)	3 (0.3)
	Accepting the experience	"I noticed a strong rattling of the air conditioner and it bothered me a lot at first, but then I accepted it and it was ok." (Beti)	"I did not get involved in the wandering thoughts. I observed them, and only after they calmed down, I started the exercise." (Iris)	3 (0.4)	2 (0.2)

Table 4 (continued).

Theme	Subtheme	Coded text example ^a (participant code in parentheses)				Number of CST ^b (%)	
		First period of the programme (Period 1)	Second period of the programme (Period 2)	Period 1	Period 2	Period 1	Period 2
Positive effects of formal mindfulness practice	Concentrating	"In the second step of the exercise, I was able to focus on my breathing and persisted long enough to feel my breathing slowing down." (Iris)	"Until I focused on my breathing, I could feel my heart pounding. Even after that, it was pounding hard for a while, and then it just stopped, because I was focused on inhaling and exhaling." (Beti)	5 (0.6)	1 (0.1)		
	Circumstances	"I am very comfortable with a guided exercise, and then it is really easy to focus on myself and feel relaxed." (Beti)	"To perform formal exercises, I go to the bathroom, where I have the most peace." (Lora)	10 (1.2)	11 (1.0)		
	Another exercise	"First I did the safe place exercise." (Iris)	—	1 (0.1)	0 (0.0)		
	Persistence	"Nevertheless, I persisted for so long that it subsided." (Iris)	"It was difficult for me to calm down and put my thoughts aside, but I persisted for a while and then it just worked." (Beti)	3 (0.4)	1 (0.1)		
Other		"I could identify with the mountain and its solitude, coldness, but also with its stability, groundedness and untouchable interior." (Iris)	"I like one of the exercises, which I often choose and do." (Beti)	6 (0.7)	7 (0.7)		
	Awareness increases	"I started to stretch and then I opened my eyes and stretched very mindfully." (Beti)	"Very strong sense of taste. I really did not expect this, but the feeling just came and hit my perception." (Beti)	28 (3.3)	16 (1.5)		
	Calmness, relaxation, and well-being	"Peace reigned in me, in which I was very comfortable, so I remained in this experience for some time." (Iris)	"I felt myself calm down. I was really calmed down and I didn't even notice anything else." (Beti)	57 (6.8)	64 (6.0)		
	Exercise makes it easier, helps to do something	"I calmed down and fairly confidently reported on the work of our group." (Iris)	"Regarding worries about the future, I could say to myself: What will be, will be. I have no control over it, so there's no point in bothering about it anymore." (Iris)	55 (6.6)	45 (4.2)		
Unpleasant effects of formal mindfulness practice	More acceptance	"Awareness helps me in my family to accept my partner and his hardships more easily. I don't take his hardships as mine, which is a great relief." (Lora)	"I think that I am gradually, slowly accepting negative emotions as an inseparable part of me, even though I don't yet completely know how to deal with them." (Iris)	11 (1.3)	3 (0.3)		
	Exercise does not help, it arouses or intensifies the unpleasant experience	"After the exercise, the burning pain under the shoulder blade starts again. My thoughts are slower, I'm very full." (Lora)	"I strongly feel that my body is very tight, because most of the time my neck hurts, I feel a burning pain under my shoulder blades." (Lora)	14 (1.7)	9 (0.8)		
Other process aspects of formal mindfulness practice	During the formal exercise, awareness of the experience occurs	"I observed the muscles of my body, what I feel after swimming for a long time, the comfort when resting, the trembling of the muscles of the legs and arms, which parts of the body feel better, are more active than before swimming, and where is there a slight pain." (Iris)	"I noticed unrest, rapid breathing and accelerated heart rate, due to some encounter." (Iris)	8 (1.0)	12 (1.1)		

Table 4 (continued).

Theme	Subtheme	Coded text example ^a (participant code in parentheses)				Number of CST ^b (%)	
		First period of the programme (Period 1)	Second period of the programme (Period 2)	Period 1	Period 2	Period 1	Period 2
During the formal exercise, acceptance of the experience occurs		"I thought that I could no longer resist my emotions, fight them continuously, no matter what happens." (Iris)	"I tried to accept everything that was present." (Iris)	5 (0.6)	3 (0.3)		
	Using a formal exercise in a stressful or unpleasant event	"I had to work with a family and for the first time I also worked on a family dialogue. Before the family arrived, I did the Three-Minute Breathing Space exercise." (Beti)	"In the moments after I get upset, I do a quick exercise to see what's really going on inside me." (Beti)	5 (0.6)	14 (1.3)		
	Adverse factors decrease or cease during formal mindfulness practice	"The touch of the whole body, which until now was causing me problems and the desire to withdraw, was pleasant to me. I was able to stay in the hug for a considerable amount of time without any unpleasant physical reactions or thoughts distracting me." (Iris)	—	8 (1.0)	0 (0.0)		
<i>Thematic area: Informal mindfulness practice</i>							
Areas of informal mindfulness practice	Mindfulness during an activity	"While cooking, I paid attention to the texture, relief, colour and structure of the food I was preparing, felt it under my fingers when cleaning, cutting, the water running down my hands, the smells ..." (Iris)	"I enjoyed washing my hair at the hairdresser's. This time she did it to me for a particularly long time, probably twenty minutes or more. It felt so good to have my eyes closed and just feel the stimuli on my head." (Beti)	343 (40.9)	557 (52.3)		
				98 (11.7)	107 (10.0)		
Mindfulness of others in interpersonal relationships		"I could feel her heartbeat and feel the warmth of her body. I was very happy when I hugged her and I thanked her for wanting to hug me. It was nice for me." (Beti)	"I try to see and understand people at work as if for the first time. What impression do they make on me, do they act warm or cold, do they look happy or unhappy, do I want to be near them or not." (Lora)	34 (4.1)	51 (4.8)		
	Mindfulness of oneself and one's own experience	"My hands and palms are slightly sweaty, the soles are a little cold. I hear noises and buzzes in my head. My jaws tingle a little." (Lora)	"I am filled with a mass of feelings and emotions, and for a while it seems to me that I know what is what, but then again everything sticks together into one mass and suffocates me." (Lora)	95 (11.3)	229 (21.5)		
Mindfulness of the environment and nature		"The moon was almost full. I watched it around half past six in the evening. It was quite unusual – a shining moon in a white-rainbowish cloud in a dark sky." (Lora)	"When I finished the exercise, I slowly opened my eyes and stared at my new colourful trousers. I found the colours and patterns quite different from before. I didn't even notice that there are letters among the patterns and that maybe it even says something and has a meaning." (Beti)	18 (2.1)	24 (2.3)		
What helps with informal mindfulness practice	External factors	"While listening to music, I can more easily get in touch with my feelings, this time feelings of rebellion, courage, struggle ..." (Iris)	"That's why I also like solitary walks, because that's the only way I can fully experience the moments when I'm truly with my experiences, enjoy mindful observation of nature and explore bodily sensations during movement." (Iris)	3 (0.4)	2 (0.2)		

Table 4 (continued).

Theme	Subtheme	Coded text example ^a (participant code in parentheses)				Number of CST ^b (%)	
		First period of the programme (Period 1)	Second period of the programme (Period 2)	Period 1	Period 2	Period 1	Period 2
Difficulties in informally practising mindfulness	Internal factors	"I could not perceive and process this while working at the same time, because I was completely focused on other people. I took some time to look inside to figure out what was going on." (Iris)	"I was tired from the previous day, which made me calmer and less tense. The tiredness of the body obviously helps me to overcome problems and calm down." (Beti)	1 (0.1)	3 (0.3)		
	External factors	"I had a hard time relaxing during the massage. I have always had a hard time accepting these types of touches." (Iris)	"I went for a run, this time with music in my ears. It was my first time running like that and it wasn't bad. [...] But it is true that it is difficult to be in touch with yourself and that it distracts you." (Beti)	2 (0.2)	1 (0.1)		
	Internal factors	"With so many happenings, which I tried to perceive all at once, I became quite confused, there was too much of everything." (Iris)	"During a walk on a very beautiful, sunny morning, I simply could not pay attention to nature and the surroundings. For something like this, there were too many internal experiences: thoughts and emotions that I had to process." (Iris)	9 (1.1)	9 (0.8)		
Positive effects of informal mindfulness practice	Practice makes it easier, it helps to achieve something	"When I noticed these reactions, it was easier for me to focus on his story and try to find out what I was really interested in: what he was experiencing." (Iris)	"What would have probably taken me two days, I now did in just over an hour and a half. I was proud of myself when the fried sweet dough balls smelled and when the wrap was baked." (Beti)	39 (4.6)	54 (5.1)		
	Awareness increases	"I started to pay more attention to myself and my feelings that arose in me." (Lora)	"I observed my experience while listening to music: joy, playfulness, exuberance, forcefulness, sadness, detachment... But the feeling of joy prevailed." (Iris)	17 (2.0)	28 (2.6)		
Unpleasant effects of informal mindfulness practice	Calmness, relaxation, well-being	"The bath really relaxed me." (Iris)	"I relaxed, listened to her and answered her questions. The conversation connected us a lot." (Iris)	18 (2.1)	25 (2.3)		
	More acceptance	"I named the feelings and stayed with them for a while, soon I felt calm." (Iris)	"When I came in contact with the emotions and memories from my childhood, I just fell silent. Tears began to roll down my face and I knew I had to take a deep breath. [...] Then I calmed down and was happy that I experienced it in such a gentle and pleasant way." (Beti)	1 (0.1)	13 (1.2)		
	It does not help, it arouses or intensifies the unpleasant experience	"At first I was comfortable, then I felt the need to withdraw physically and emotionally, and so I did." (Iris)	"I feel helpless, wounded, abandoned. I know it will pass, but it's hard for me right now." (Lora)	6 (0.7)	1 (0.1)		
Other process aspects of informal mindfulness practice	Acceptance of experience during informal practice	"I let there be silence. I wanted to be alone with this and let the tears flow and let my thoughts flow." (Beti)	"As I closed my eyes in the chair for a few minutes and tried to calm down, I allowed myself to feel tired." (Lora)	1 (0.1)	3 (0.3)		

Table 4 (continued).

Theme	Subtheme	Coded text example ^a (participant code in parentheses)		Number of CST ^b (%)	
		First period of the programme (Period 1)	Second period of the programme (Period 2)	Period 1	Period 2
Thematic area: General helpful factors for mindfulness	The use of directing attention in an unpleasant situation	"As I got into my car and drove to the club, I took five or more deep breaths. Before I came down, I was already calm and without thoughts of arguing. So I could be fully present for intense listening." (Beti)	"I remember feeling pain in my feet around the fourteenth kilometer, and I quickly turned my attention to listening to sounds. I heard the wind, and birds singing and the sounds of feet hitting the ground... I quickly managed to focus on the sounds, as well as on breathing." (Beti)	1 (0.1)	7 (0.7)
	External general factors of mindfulness	—	"When meditating for a long time, I usually reach peace and a state without thoughts through various, sometimes very difficult feelings." (Iris)	11 (1.3)	15 (1.4)
	Internal general factors of mindfulness	—	"I've come to really like taking a minute or so and being able to remember it over and over again." (Beti)	"Sometimes my mind really starts telling me, it's your fault, you shouldn't do this, but I've gotten used to it and I stop for a moment." (Beti)	14 (1.7)
Thematic area: Effects of experiential acceptance	With acceptance, the experience diminishes or ceases	—	"First there were twitches in the left arm and left leg. Then I accepted it and it stopped." (Beti)	36 (4.3)	52 (4.9)
	With acceptance, the experience becomes positive or more pleasant	—	"But since I now know why and from which part of me these thoughts originate, I first heard them, then 'sat them down on the chair next to me', reconnected with my desire for closeness and – hugged my husband. The whole process! It was very nice for me ..." (Iris)	5 (0.6)	11 (1.0)
	A new experience of acceptance	—	"I am slowly accepting the fact that it is very good, in fact necessary for me to learn things that most people take for granted, that they 'know' or 'do' from a young age." (Iris)	22 (2.6)	29 (2.7)
Thematic area: Effects of experiential awareness	General effects of awareness during mindfulness	Awareness increases	"Then came thoughts of things I need to sort out because they really annoy and bother me. [...] I became really angry in between and I could also feel my face changing. My forehead wrinkled, I raised my cheeks ..." (Beti)	9 (1.1)	12 (1.1)
	Awareness helps, makes it easier	—	"First I felt uncertainty, then sadness, it came from my stomach through my chest and stopped in my throat, I cried." (Iris)	67 (8.0)	52 (4.9)
	Calmness, relaxation, well-being	—	"During the exercise, the intensity decreased." (Iris)	10 (1.2)	3 (0.3)
			"When I became aware of my thoughts, that feeling was gone." (Beti)	1 (0.1)	3 (0.3)

Table 4 (continued).

Theme	Subtheme	Coded text example ^a (participant code in parentheses)				Number of CST ^b (%)	
		First period of the programme (Period 1)	Second period of the programme (Period 2)	Period 1	Period 2	Period 1	Period 2
Effects of breath awareness	The experience is unpleasant	"Then I felt a kind of calmness, which was not pleasant, but more like fatigue. Also a little like a feeling of a virus that is starting to attack you." (Betj)	—	—	—	2 (0.2)	0 (0.0)
	Breathing helps to concentrate	"[During the Body Scan exercise] my husband came into the room and started asking me if I was asleep... I was not distracted and continued to keep my eyes closed and focus on my breathing." (Betj)	—	—	—	3 (0.4)	0 (0.0)
	Breathing helps to calm down, relax	"As I focused on my breathing, I could feel myself relaxing with each breath." (Iris)	"When I became aware of these experiences and focused on my breathing, the unrest subsided, as did the physical signs." (Iris)	13 (1.5)	15 (1.4)	—	—
	Deepening awareness	"After breathing [...] I feel every part of my body." (Lora)	"I almost always feel some kind of flow flowing through my body. The body somehow comes to life, as if it had a mass of very tiny vibrating bubbles." (Lora)	6 (0.7)	2 (0.2)	—	—
Effects of being aware of bodily sensations	The effects are unpleasant	"As I shifted my attention to my breathing, I became dizzy." (Iris)	"When I focused on breathing, this fatigue increased and deepened." (Betj)	1 (0.1)	1 (0.1)	—	—
	Awareness increases	"Even though my bodily responses during this exercise are already familiar to me, today I was again amazed at myself and the responses of my body." (Iris)	"Maybe after the exercise, my bad feeling, which I didn't even know about, came to the fore even more, but now I feel that my head is not completely clear and that maybe some virus is attacking me too." (Betj)	8 (1.0)	10 (0.9)	—	—
	The experience is pleasant, it helps to calm down and relax	"After observing this for a while, it already seems to me that the body is swaying to a certain rhythm. I feel the whole thing as a kind of ripple. [...] A very pleasant feeling." (Betj)	"I noticed that some muscles were tense, and they relaxed. I finally felt great physical comfort and relaxation." (Iris)	19 (2.3)	9 (0.8)	—	—
The experience is pleasant, it helps to calm down and relax	The experience is unpleasant	"A few deep, audible exhales right after [the exercise] told me I wasn't completely relaxed, in fact I was relieved when it was over." (Iris)	"When we got to the sand, I again got the association of a funeral. [...] Although I like the sound of the sand, the thought of a funeral made me no longer comfortable." (Betj)	3 (0.4)	5 (0.5)	—	—
	Thematic area: <i>Meta-mindfulness</i>	—	—	32 (3.8)	64 (6.0)	—	—
Noticing increased contact with oneself	—	"Sometimes it really annoys me that now I feel a lot more of various fears." (Iris)	"Compared to the beginnings of practising mindfulness, I am much more in touch with bodily sensations. Not only during exercise, but also in everyday life I notice tension or pleasant sensations in my body. I can also perceive emotions, that is, in which part of the body they are expressed." (Iris)	9 (1.1)	10 (0.9)	—	—

Table 4 (continued).

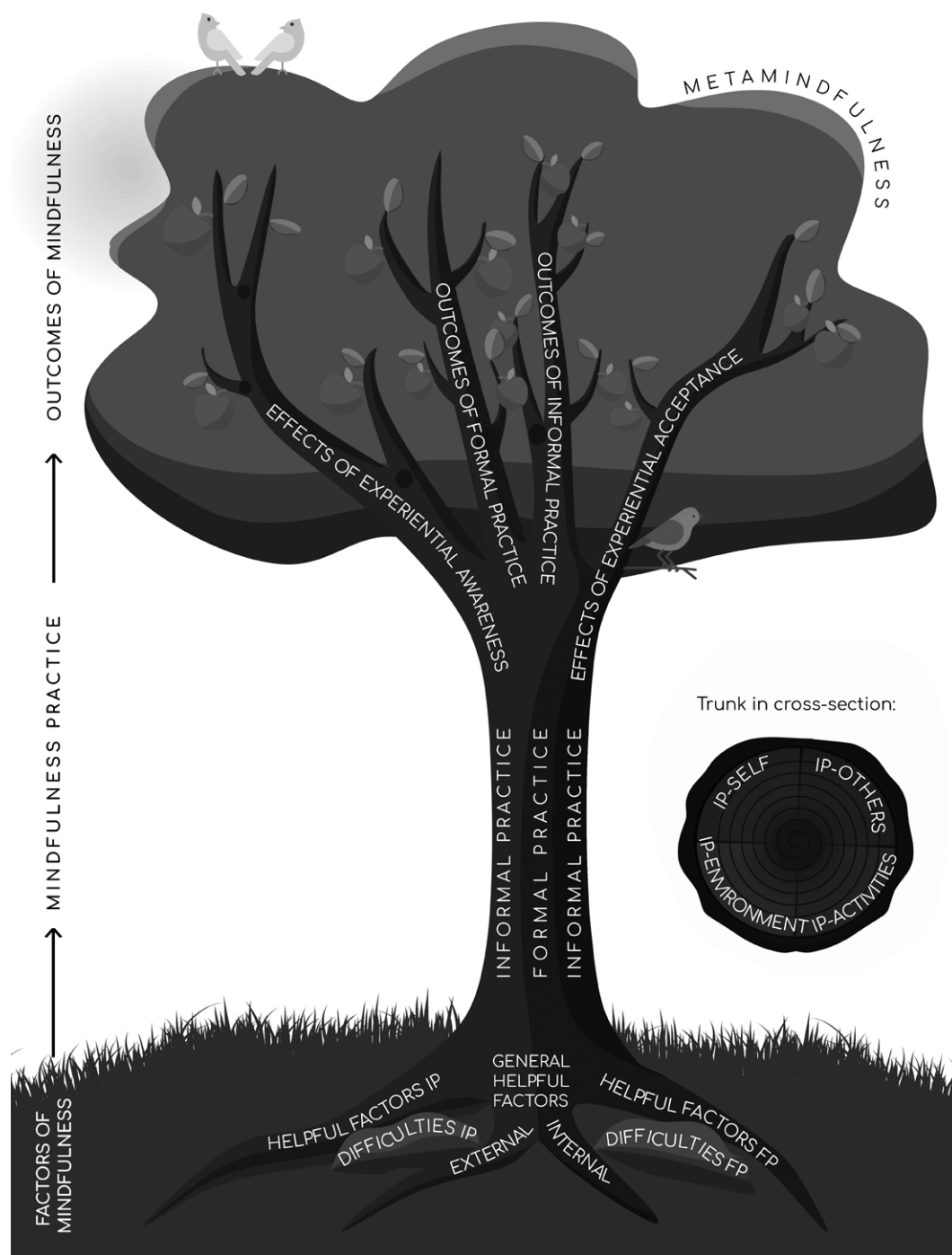
Theme	Subtheme	Coded text example ^a (participant code in parentheses)				Number of CST ^b (%)	
		First period of the programme (Period 1)	Second period of the programme (Period 2)	Period 1	Period 2	Period 1	Period 2
Noticing greater quality of life	—	"Practising mindfulness exercises is an invaluable aid to my processes. Through regular practice, I learned to observe my experiences even in the most difficult moments and emotions. [...] Based on this, I will be able to make more conscious decisions and act in the direction I want. This already, at least from time to time, gives me a sense of stability and groundedness, which I've always been missing." (Iris)	"And maybe this finding that I am focusing on the positive and not only on the negative." (Betj)	6 (0.7)	12 (1.1)	—	—
Noticing an increase in personality strengths	—	"It encourages me that I have enough tools, willpower and knowledge in my hands to help myself and people who stand by me." (Iris)	"I thought, and I'm really surprised at how calm I've been lately. How I don't panic and I'm not nervous." (Betj)	8 (1.0)	14 (1.3)	—	—
Noticing other significant changes	—	"For several days now, I have felt that I am much more present in the moment, that I no longer have the need to constantly deal with the past or the future. That I am, so to speak, spontaneously aware much more of the time than before." (Iris)	"Finally, I can accept both the pleasant and unpleasant bodily sensations that arise, without shame, guilt and a sense of unworthiness, as was the case many times before." (Iris)	7 (0.8)	14 (1.3)	—	—
Noting that mindfulness can take effort	—	"However, [living a mindful everyday life] seems to me to be a very unattainable wish for now, it is much easier for me to set some short-term goals and gradually realize them." (Iris)	"Exaggerated reactions to various events have occurred to me several times recently, perhaps this is an understandable consequence of the increased ability to feel, since I no longer repress everything, I wish I could eventually regulate these excessive emotional states because they are very draining on me." (Iris)	2 (0.2)	8 (0.8)	—	—
Noticing the consequences of mindlessness	—	—	"Then my mother came and then I burst out. I immediately realized that I reacted and went into an old pattern." (Betj)	0 (0.0)	6 (0.6)	—	—
All themes	—	—	—	839 (100.0)	1,065 (100.0)	—	—

Notes. First period of the programme = months 1–3 of the mindfulness programme; Second period of the programme = months 4–7 of the mindfulness programme.

^a The coded text examples were selected by the second author, without knowing whether they were from the first or second period of the program, to avoid possible researcher bias caused by expectancies of the second author.

^b CST = coded segments of text. In boldface are significantly higher values, established by performing binomial tests under the null hypothesis of equal distribution of occurrences of coded segments between months of the mindfulness programme ($p \leq .05$, except for theme "Noticing the consequences of mindlessness" and for thematic area "Meta-mindfulness" where in both cases $p = .07$ and thus closely approaching statistical significance).

Figure 1. Thematic Map Produced in Thematic Analysis.



Notes. FP = formal mindfulness practice; IP = informal mindfulness practice; IP-SELF = informal mindfulness of self; IP-OTHERS = informal mindfulness of others; IP-ENVIRONMENT = informal mindfulness of the environment; IP-ACTIVITIES = informal mindfulness of activities. The computer drawing was made by Rok Černetič.

The thematic map shows three main constituents of the process of mindfulness cultivation: (a) factors influencing mindfulness development (represented as a root system of the tree), (b) mindfulness practice (represented as a trunk), and (c) outcomes of mindfulness (depicted as a canopy with fruit). As with a tree having many roots, the development of mindfulness also depends on several factors. This includes various difficulties, represented in the thematic map as rocks that hinder the growth of the tree. A trunk gives the tree support and stability, and functions as an intermediary between the roots (factors of mindfulness) and the canopy with fruit (outcomes of mindfulness). Seen in a cross-section, formal mindfulness practice is shown to function in a similar fashion to the inner, central parts of a trunk (pith and heartwood), known for giving a tree stability and support. In contrast, informal mindfulness practice is seen as something that spreads concentrically outwards in all directions along the circumference of the trunk and includes the trunk's vital parts (live bark and sapwood) where the tree's sap flows and where the trunk is in contact with its environment. This analogy illustrates that formal practice gives mindfulness strength and persistence whereas informal practice connects mindfulness to the plethora of situations in the life of an individual and to their vital concerns.

3.2.2. Differences Between the First and the Second Period of Programme Duration

To analyze changes that occurred in the participants during the programme, we separately investigated two periods of programme duration: months 1 to 3 (the first period) and months 4 to 7 (the second period). Table 4 shows differences in the distribution of themes and subthemes between the first and the second period.

It can be seen from the table that in the analyzed mindfulness diaries formal mindfulness practice was statistically significantly more represented in the first period of the programme compared to the second period. Also, in the first period the participants wrote significantly more about problems in formal practice and about the positive results of such practice than in the second period, while in the second period they wrote more about affective material and bodily sensations compared to the first period.

Whereas formal mindfulness practice predominates in the coded segments of the first period, informal practice dominates the second period. There is a large difference between the two periods in informal mindfulness of oneself and one's own experience. Positive results of informal practice were significantly more pronounced in the second period while unpleasant results of such practice were more represented in the first period.

More prominent in the first period was also writing about internal general helpful factors for mindfulness and about the effects of experiential awareness (namely, noticing the increase in awareness during mindfulness exercises, and positive results of bodily awareness). And finally, the thematic area of meta-mindfulness, as we termed an individual's awareness and reflection of their mindfulness, was significantly more present in the diary entries of the later part of the mindfulness training.

3.2.3. Validation of Qualitative Findings

We validated the qualitative results of the study using four validation methods, selected from the work of Johnson and Christensen (2007): (a) triangulation, (b) auditing by a colleague, (c) extended field work, and (d) researchers' reflexivity.

Triangulation. This means cross-checking conclusions through the use of multiple procedures or sources. We compared our qualitative findings with the results of the quantitative part of our study, and found convergence without contradictions.

Auditing by a colleague. The second author carried out coding of the text and creating categories (themes, subthemes and thematic areas), while the first author regularly reviewed the process, providing feedback to the second author.

Extended field work. For greater validity of their research, researchers should collect data over a longer period of time. In the present study, two of the diaries were from the first year of data collection, and one diary was from the second year (i.e., from another run of the same mindfulness programme).

Researchers' reflexivity. This is the most fundamental validation method in qualitative research. During our research activities, both authors exerted reflexivity on how we might be influencing the research process with our personal and professional characteristics. We were actively bracketing our expectations concerning the study results. According to Tufford and Newman (2012), bracketing is a method used in qualitative research to mitigate the potentially deleterious effects of preconceptions that may taint the research process. We tried to be open for whatever was emerging from the data itself. In this bracketing process, for example, at some point during the study the first author noticed having a quite strong internal experience because the results differed from what he had expected.

4. Discussion

4.1. Answers to the Research Question and Implications of the Study

4.1.1. Quantitative Findings

During the mindfulness programme, various aspects of mindfulness notably increased, with mostly large effect sizes: trait mindfulness, state mindfulness, and mindfulness as a process. However, with trait mindfulness, only the awareness facet significantly increased but not the acceptance facet. The latter increased only in state mindfulness (as decentring). In trait mindfulness, the increase of experiential acceptance was close to statistical significance, but with much lower effect size compared to the awareness of experience. This occurrence is consistent with our clinical observations that mindful acceptance as a personality trait needs more time (or practice) to develop in comparison with mindful awareness.

During the programme there also emerged positive changes, with medium effect sizes, in psychological well-being and psychological distress. These results are consistent with previous research which found mindfulness-related increase in general well-being in counselling trainees (Birnbaum, 2008; Newsome et al., 2006; Rybak & Russell-Chapin, 1998; Schure et al., 2008).

Changes that occurred during the programme were mostly intercorrelated in expected directions and size ranges. For example, there were significant positive correlations between trait mindfulness scales. What was not expected, however, is the negative correlation between trait mindfulness (measured by MAAS) and state mindfulness (TMS-Decentring subscale). This suggests that when trait awareness increased, the propensity towards a decentred state decreased (or vice versa). In contrast to state acceptance (or decentring), MAAS correlated positively with acceptance on a trait level. It might be that increased awareness led to a less decentred stance towards experience.

Particularly interesting are correlations between changes in mindfulness on the one end and changes in psychological well-being and psychological distress on the other. The MPQ positively correlated with positive affect, satisfaction with life, and quality of life, whereas both subscales of the PHLMS correlated negatively with negative affect. It seems that MPQ and PHLMS possess differential sensitivity, in the sense that the MPQ measures aspects of mindfulness that are related predominantly to positive affect and psychological well-being, whereas the PHLMS might be more sensitive to the aspects of mindfulness related to the improvement of negative experience, such as reduction in negative affect and negative psychological symptoms. This might shed some light

on the connections of mindfulness with different aspects of mental health as the latter are delineated in the complete state model of mental health (Keyes & Lopez, 2002). According to this model, complete mental health includes both the absence of mental illness symptoms and the presence of well-being symptoms. In contrast, incomplete mental health (termed *floundering* in the model) is characterized by the lack of well-being symptoms besides mental illness symptoms being low. Cases where well-being symptoms are well represented and coexist with mental illness symptoms are described as incomplete mental illness (or *struggling*), whereas the combination of mental illness symptoms and the absence of well-being symptoms is described as complete mental illness (or *languishing*). While the MPQ might be related more to well-being symptoms, the PHLMS might be more sensitive to mental illness symptoms.

What about the role of previous experiences with mindfulness? As shown by ANCOVAs, pre-post differences in trait mindfulness and process mindfulness remained significant even after the controlling for previous mindfulness experiences. These experiences themselves were only significantly related to mindful acceptance, but not to mindful awareness nor to mindfulness as a process. The unique relation of previous mindfulness experiences with mindful acceptance is consistent with the assumption already discussed above that mindful acceptance develops at a slower pace compared to mindful awareness, perhaps requiring a greater dose (of practice or mindfulness intervention).

4.1.2. Qualitative Findings

The qualitative results of the study support the quantitative by also showing an increase in mindfulness and psychological well-being and a decrease of psychological distress during the mindfulness programme. In addition, the qualitative part of our research deepens and enriches the quantitative findings, as it enables an in-depth insight into the process of mindfulness development in psychotherapy trainees. It tells a lot about how mindfulness was developing during the programme, about facilitative factors for mindfulness, and about the perceived effects of mindfulness.

It is not surprising that in the analyzed mindfulness diaries, in the first period of the programme, formal mindfulness practice was in the foreground, because when people start practising mindfulness, they usually tend to focus a lot on the implementation of formal exercises. It is also understandable that in the first period the participants wrote significantly more about problems with their practice; later on they probably overcame these problems since our analysis also shows that they mastered general helpful factors for mindfulness in the first period. During this period the participants also mentioned the positive effects of mindfulness more, which they then supposedly got used to. Our results thus

suggest that doing the formal exercises, what was characteristic of the first period of the programme, enabled the participants to launch their mindfulness practice while also laying the foundation for cultivating informal mindfulness activities.

In the second period of the programme informal mindfulness practice came prominently to the fore. This kind of practice over time concentrically spreads outwards into different areas of the participant's life. It can be concluded that in learning mindfulness, informal practice stems from the formal one, and not vice versa. To illustrate this process we introduced the trunk metaphor, described in the Results section. In the second period of the programme the participants in our research became more proficient in informal mindfulness practice and the unpleasant effects of mindfulness activities significantly decreased. Informal and formal mindfulness related to self-awareness and to one's own experience increased significantly in the second period of the programme. In addition, the participants' noticing of experiential acceptance as a positive effect of mindfulness practice shifted to the domain of informal practice in the second period.

As shown in the qualitative part of the study, mindfulness resulted in greater quality of life, development of personal strengths, and emergence of positive changes in life. More precisely, mindfulness practice helped participants gain: (a) increased awareness of self and others; (b) calmness, relaxation, and well-being; (c) improved functioning in daily life; and (d) increased acceptance of their own and others' experience. An event described by a participant named Betti (the name has been changed) reflects a new experience of acceptance that occurred in the second part of the programme: "At the end, I also had tears, but I didn't hide them, I let them be where they were, I let them flow. This is probably an important moment for me."

The importance of mindfulness specifically for psychotherapy trainees has been well articulated by another research participant (Iris): "Practising mindfulness exercises is an invaluable aid to my processes." Indeed, there are many concurrent processes going on in psychotherapy trainees, such as their personal therapy process, training experiences, client work, supervision, as well as their life outside the realm of therapy.

Through mindfulness practice, the observation of their own mindfulness gradually developed in the participants. Thus an additional, second-order process and effect of mindfulness emerged – a phenomenon we have termed meta-mindfulness. During the programme the study participants began to notice by themselves that they were more in touch with themselves, had a higher quality of life and were personally stronger. They also noticed the consequences of non-mindfulness, and that mindfulness can be tiring. Meta-mindfulness was more pronounced in the second period of the programme, which indicates that

with practice, mindfulness widens and begins to encompass even itself as an object of awareness. This is important because meta-mindfulness might enable mindful living to be self-sustained (or self-regulated) and might offer a solution to the problem that after completing a mindfulness programme many participants reduce mindfulness practice or give it up altogether, to their detriment (see Gross et al., 2004; L. P. K. Morgan et al., 2014; Ribeiro et al., 2018; Sephton et al., 2007). If a mindfulness intervention manages to develop meta-mindfulness in the participants, they will be more likely to maintain a higher, more beneficial level of practice after the conclusion of the intervention, because they will be better at noticing when they are not mindful and what benefits they reap from being mindful.

4.2. **Problems and Limitations of the Study**

We were not able to include a control group in our study and such a quasi-experimental research design presents an obstacle to a causal interpretation of the results. However, it is important to note that the aim of this naturalistic study was not to reach confirmatory causal conclusions, but rather to make a broad-focused, exploratory investigation of the mindfulness cultivation process in psychotherapy trainees. Our investigation included different aspects of mindfulness, observing the relationship to psychological well-being and psychological distress, measuring state mindfulness at multiple time points throughout the course of the programme, performing several correlational analyses on the data, and broadening the study insights with the addition of qualitative research methodology. By the inclusion of quantitative and qualitative data a possibility was created that findings from these two research approaches mutually validate each other by means of triangulation.

Due to the small sample size statistical power was low. This was most detrimental with regard to follow-up data where the dropout of about every other participant was observed and consequently statistical power dropped even lower. Interestingly, changes in several variables in this study were statistically significant despite the low statistical power.

Previous experiences with mindfulness were assessed with two items only, which poses some doubts about reliability and validity of the data concerned. For example, some of the participants might have understood previous mindfulness experiences in a broader, more popular sense which is not how mindfulness is defined in professional and academic circles. However, the second item for measuring previous experiences was open-ended, which enabled us to make some checks about what the participants regarded as mindfulness.

A note about reliability calculations should also be added. Although Cronbach's alpha coefficients were mostly in the adequate range, there is a caveat regarding the alphas calculated on data collected in this study. Charter (2003) has noted that with low sample sizes alpha coefficients can be unstable. Our sample size deviates significantly from the sizes recommended for the estimation of the Cronbach's alpha coefficient (see Yurdugül, 2008). For a more reliable assessment of the psychometric quality of the scales' translations, prepared in the scope of the present study, further research would be necessary.

In the qualitative part of the study, only three mindfulness diaries have been analyzed because other participants did not submit diary entries for the whole duration of the programme (as was the programme's requirement). It is not clear what factors were related to the submission of a complete diary. It was thus not possible to validate our qualitative findings with the analysis of additional material, but we utilized other validation methods and the point of theoretical saturation was reached. Despite the absolute qualitative sample size being rather low, the three diaries were rich accounts which covered a long time range of more than half a year of continuous mindfulness development, producing a total of several hundred pages of text (equalling an average self-help book).

Trainees of a single psychotherapy approach participated in the study, which limits the possibilities for generalization of the research findings.

4.3. **Suggestions for Further Research**

Concerning methodological aspects, adding a control group to the research design would make causal conclusions possible. Also, reliability of the findings could be increased by replicating the study on bigger and/or different samples (e.g., on trainees of other psychotherapy orientations). In addition, cultivation of state mindfulness (which is by definition transitory, much more fluctuating than trait mindfulness) might perhaps be better measured in a more extensive manner (e.g., with a time series approach); four or five discrete measures per participant, as was the case in the present study, might not be enough to reliably capture potential differences during a mindfulness programme.

An important line of further research into mindfulness development is additional investigation of the acceptance/decentration mindfulness facet. Particularly, how to achieve greater increase of acceptance in mindfulness programmes, especially in psychotherapy trainees, given that experiential acceptance is of paramount importance in psychotherapy work.

Additional research is also needed to investigate the relationship between the characteristics of particular mindfulness programmes and the therapeutic effectiveness of psychotherapy trainees. For example, as noted above,

in a study by Grepmaier and colleagues (2007) a relatively high dose of mindfulness training, provided to psychotherapy trainees, was needed to translate into the treatment results of their patients, compared to a brief (5-week) mindfulness training in a study by Swift et al. (2017) after which no client-reported differences were observed in the psychotherapy processes led by psychotherapy trainees. The mindfulness intervention used in our study was less intensive but prolonged and more focused on informal practice, compared to more traditional mindfulness programmes, and it would be interesting to find out the potential influence these characteristics would have had on the therapeutic effectiveness of psychotherapy trainees.

5. Conclusion

This study showed a positive relationship between mindfulness cultivation and an improved quality of life in psychotherapy trainees. Our findings also have implications for trainees' capacity for learning as well as for the quality of their work with clients.

Some important insights about mindfulness development have also been gained in the present research. First, the study provided empirical support to the clinical observation that the acceptance facet of mindfulness is harder to develop than the awareness facet. Secondly, our research showed that in the process of mindfulness development, formal practice is primary and serves as a basis for the outgrowth and flourishing of informal practice which becomes prominent in later stages of mindfulness development. What most fosters positive life changes as a result of mindfulness is probably not formal mindfulness per se, but rather the (informal) implementation of mindfulness in a person's life. And thirdly, one of the observed outcomes of mindfulness practice is meta-mindfulness which is beneficial in the self-sustainment of mindful living.

References

- Beck, A. T., Steer, R. A., & Carbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*, 8(1), 77–100. [https://doi.org/10.1016/0272-7358\(88\)90050-5](https://doi.org/10.1016/0272-7358(88)90050-5)
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561–571. <https://doi.org/10.1001/archpsyc.1961.01710120031004>
- Birnbaum, L. (2008). The use of mindfulness training to create an 'accompanying place' for social work students. *Social Work Education*, 27(8), 837–852. <https://doi.org/10.1080/02615470701538330>
- Bradburn, N. (1969). *The structure of psychological well-being*. Aldine.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qpo630a>
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822–848. <https://doi.org/10.1037/0022-3514.84.4.822>
- Bruce, N. G., Shapiro, S. L., Constantino, M. J., & Manber, R. (2010). Psychotherapist mindfulness and the psychotherapy process. *Psychotherapy: Theory, Research, Practice, Training*, 47(1), 83–97. <https://doi.org/10.1037/a0018842>
- Cardaciotto, L., Herbert, J. D., Forman, E. M., Moitra, E., & Farrow, V. (2008). The assessment of present-moment awareness and acceptance: The Philadelphia Mindfulness Scale. *Assessment*, 15(2), 204–223. <https://doi.org/10.1177/1073191107311467>
- Charter, R. A. (2003). Study samples are too small to produce sufficiently precise reliability coefficients. *The Journal of General Psychology*, 130(2), 117–129. <https://doi.org/10.1080/00221300309601280>
- Christopher, J. C., & Maris, J. A. (2010). Integrating mindfulness as self-care into counselling and psychotherapy training. *Counselling and Psychotherapy Research*, 10(2), 114–125. <https://doi.org/10.1080/14733141003750285>
- Cooper, D., Yap, K., O'Brien, M., & Scott, I. (2020). Mindfulness and empathy among counseling and psychotherapy professionals: A systematic review and meta-analysis. *Mindfulness*, 11(10), 2243–2257. <https://doi.org/10.1007/s12671-020-01425-3>
- Černetič, M. (2011). Kjer je bil id, tam naj bo ... Čuječnost: Nepresojajoče zavedanje in psihoterapija [Where id was, there shall... Mindfulness be: Nonjudgmental awareness and psychotherapy]. *Kairos*, 5(3/4), 23–34.
- Černetič, M. (2016). The relationship between anxiety and mindfulness: The role of mindfulness facets, implicit anxiety, and the problem of measuring anxiety by self-report. *Psihologija*, 49(2), 169–183. <https://doi.org/10.2298/PSI1602169C>
- Černetič, M. (2017). Struktura konstrukta čuječnosti: Zavedanje doživljanja in sprejemanje doživljanja [The structure of the mindfulness construct: Awareness and acceptance of experience]. *Psihološka Obzorja/Horizons of Psychology*, 26, 41–51. <https://doi.org/10.20419/2017.26.465>
- Davis, D. M., & Hayes, J. A. (2011). What are the benefits of mindfulness? A practice review of psychotherapy-related research. *Psychotherapy*, 48(2), 198–208. <https://doi.org/10.1037/a0022062>
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13
- Diener, E., & Suh, E. (1997). Measuring quality of life: Economic, social, and subjective indicators. *Social Indicators Research*, 40(1–2), 189–216. <https://doi.org/10.1023/A:1006859511756>
- Dodge, R., Daly, A., Huyton, J., & Sanders, L. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing*, 2(3), 222–235. <https://doi.org/10.5502/ijw.v2i3.4>
- Endicott, J., Nee, J., Harrison, W., & Blumenthal, R. (1993). Quality of Life Enjoyment and Satisfaction Questionnaire: A new measure. *Psychopharmacology Bulletin*, 29(2), 321–326.

- Erismann, S. M., & Roemer, L. (2012). A preliminary investigation of the process of mindfulness. *Mindfulness*, 3(1), 30–43. <https://doi.org/10.1007/s12671-011-0078-x>
- Flowers, J., & Michael, P. (2017). An examination of the reliability and factor structure of the mindfulness process questionnaire (MPQ). *Mindfulness & Compassion*, 2(2), 71–81. <https://doi.org/10.1016/j.mincom.2017.10.001>
- Grepmaier, L., Mitterlehner, F., Loew, T., Bachler, E., Rother, W., & Nickel, M. (2007). Promoting mindfulness in psychotherapists in training influences the treatment results of their patients: A randomized, double-blind, controlled study. *Psychotherapy and Psychosomatics*, 76(6), 332–338. <https://doi.org/10.1159/000107560>
- Gross, C. R., Kreitzer, M. J., Russas, V., Treesak, C., Frazier, P. A., & Hertz, M. I. (2004). Mindfulness meditation to reduce symptoms after organ transplant: A pilot study. *Advances in Mind-Body Medicine*, 20(2), 20–29.
- Heinonen, E., Orlinsky, D. E., Willutzki, U., Rønnestad, M. H., Schröder, T., Messina, I., Löffler-Stastka, H., & Hartmann, A. (2022). Psychotherapist trainees' quality of life: Patterns and correlates. *Frontiers in Psychology*, 13, 864691. <https://doi.org/10.3389/fpsyg.2022.864691>
- Johnson, B., & Christensen, L. (2007). *Educational research: Quantitative, qualitative and mixed approaches*. Sage.
- Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. Dell Publishing.
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10(2), 144–156. <https://doi.org/10.1093/clipsy/bpg016>
- Keyes, C. L. M., & Lopez, S. J. (2002). Toward a science of mental health: Positive directions in diagnosis and interventions. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 45–59). Oxford University Press.
- Lamovec, T. (1988). *Priročnik za psihologijo motivacije in emocij*. Filozofska fakulteta Univerze Edvarda Kardelja v Ljubljani, Oddelek za psihologijo.
- Lau, M. A., Bishop, S. R., Segal, Z. V., Buis, T., Anderson, N. D., Carlson, L., Shapiro, S., Carmody, J., Abbey, S., & Devins, G. (2006). The Toronto Mindfulness Scale: Development and validation. *Journal of Clinical Psychology*, 62(12), 1445–1467. <https://doi.org/10.1002/jclp.20326>
- Lindsay, E. K., & Creswell, J. D. (2017). Mechanisms of mindfulness training: Monitor and Acceptance Theory (MAT). *Clinical Psychology Review*, 51, 48–59. <https://doi.org/10.1016/j.cpr.2016.10.011>
- Martin, J. R. (1997). Mindfulness: A proposed common factor. *Journal of Psychotherapy Integration*, 7(4), 291–312. <https://doi.org/10.1023/B:JOPI.0000010885.18025.bc>
- McLeod, J. (2011). *Qualitative research in counselling and psychotherapy* (2nd ed). SAGE.
- Morgan, L. P. K., Graham, J. R., Hayes-Skelton, S. A., Orsillo, S. M., & Roemer, L. (2014). Relationships between amount of post-intervention mindfulness practice and follow-up outcome variables in an acceptance-based behavior therapy for Generalized Anxiety Disorder: The importance of informal practice. *Journal of Contextual Behavioral Science*, 3(3), 173–178. <https://doi.org/10.1016/j.jcbs.2014.05.001>
- Morgan, W. D., & Morgan, S. T. (2005). Cultivating attention and empathy. In C. K. Germer, R. D. Siegel, & P. R. Fulton (Eds.), *Mindfulness and psychotherapy* (pp. 73–90). Guilford Press.
- Newsome, S., Christopher, J. C., Dahlen, P., & Christopher, S. (2006). Teaching counselors self-care through mindfulness practices. *Teachers College Record*, 108(9), 1881–1900. <https://doi.org/10.1111/j.1467-9620.2006.00766.x>
- O'Donovan, A., & May, S. (2007). The advantages of the mindful therapist. *Psychotherapy in Australia*, 13(4), 46–53.
- Pavot, W., & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment*, 5(2), 164–172. <https://doi.org/10.1037/1040-3590.5.2.164>
- Ribeiro, L., Atchley, R. M., & Oken, B. S. (2018). Adherence to practice of mindfulness in novice meditators: Practices chosen, amount of time practiced, and long-term effects following a mindfulness-based intervention. *Mindfulness*, 9(2), 401–411. <https://doi.org/10.1007/s12671-017-0781-3>

- Riendeau, R. P., Sullivan, J. L., Meterko, M., Stolzmann, K., Williamson, A. K., Miller, C. J., Kim, B., & Bauer, M. S. (2018). Factor structure of the Q-LES-Q short form in an enrolled mental health clinic population. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation*, 27(11), 2953–2964. <https://doi.org/10.1007/s11136-018-1963-8>
- Rodriguez Vega, B., Melero-Llorente, J., Bayon Perez, C., Cebolla, S., Mira, J., Valverde, C., & Fernández-Liria, A. (2014). Impact of mindfulness training on attentional control and anger regulation processes for psychotherapists in training. *Psychotherapy Research*, 24(2), 202–213. <https://doi.org/10.1080/10503307.2013.838651>
- Ryan, A., Safran, J. D., Doran, J. M., & Muran, J. C. (2012). Therapist mindfulness, alliance and treatment outcome. *Psychotherapy Research*, 22(3), 289–297. <https://doi.org/10.1080/10503307.2011.650653>
- Rybak, C. J., & Russell-Chapin, L. A. (1998). The teaching well: Experience, education, and counselling. *International Journal for the Advancement of Counselling*, 20(2), 131–139. <https://doi.org/10.1023/A:1005312019362>
- Schure, M. B., Christopher, J., & Christopher, S. (2008). Mind-body medicine and the art of self-care: Teaching mindfulness to counseling students through yoga, meditation, and qigong. *Journal of Counseling & Development*, 86(1), 47–56. <https://doi.org/10.1002/j.1556-6678.2008.tb00625.x>
- Sephton, S. E., Salmon, P., Weissbecker, I., Ulmer, C., Floyd, A., Hoover, K., & Studts, J. L. (2007). Mindfulness meditation alleviates depressive symptoms in women with fibromyalgia: Results of a randomized clinical trial. *Arthritis & Rheumatism*, 57(1), 77–85. <https://doi.org/10.1002/art.22478>
- Shapiro, S. L., Brown, K. W., & Biegel, G. M. (2007). Teaching self-care to caregivers: Effects of mindfulness-based stress reduction on the mental health of therapists in training. *Training and Education in Professional Psychology*, 1(2), 105–115. <https://doi.org/10.1037/1931-3918.1.2.105>
- Siegel, D. J. (2010). *The mindful therapist: A clinician's guide to mindfulness and neural integration*. W.W. Norton & Co.
- Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., & Jacobs, G. A. (1983). *Manual for the State-Trait Anxiety Inventory*. Consulting Psychologists Press.
- Strauss, A., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. SAGE.
- Surrey, J. L. (2005). Relational psychotherapy, relational mindfulness. In C. K. Germer, R. D. Siegel, & P. R. Fulton (Eds.), *Mindfulness and psychotherapy* (pp. 91–110). Guilford Press.
- Swift, J. K., Callahan, J. L., Dunn, R., Brecht, K., & Ivanovic, M. (2017). A randomized-controlled crossover trial of mindfulness for student psychotherapists. *Training and Education in Professional Psychology*, 11(4), 235–242. <https://doi.org/10.1037/tep0000154>
- Tufford, L., & Newman, P. (2012). Bracketing in qualitative research. *Qualitative Social Work*, 11(1), 80–96. <https://doi.org/10.1177/1473325010368316>
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063–1070. <https://doi.org/10.1037/0022-3514.54.6.1063>
- Winefield, H. R., Gill, T. K., Taylor, A. W., & Pilkington, R. M. (2012). Psychological well-being and psychological distress: Is it necessary to measure both? *Psychology of Well-Being: Theory, Research and Practice*, 2(1), 3. <https://doi.org/10.1186/2211-1522-2-3>
- Yurdugül, H. (2008). Minimum sample size for Cronbach's coefficient alpha: A Monte-Carlo study. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi/H. U. Journal of Education*, 35, 397–405.