Process-Oriented Approach to Working with Body Symptoms

Barbora Sedláková, Tomáš Dominik, Marek Kolařík

ABSTRACT

Objective. This study examines the effects of process-oriented approach to working with body symptoms on clients' symptom severity, well-being, and satisfaction.

Method. We used an additive design. Quantitative repeated measures were obtained from 67 participants randomized into experimental and control groups. Thirty-five participants from the experimental group underwent an experimental session by using Process-oriented Psychology, and were administered questionnaires immediately before, immediately after, and one week after the session. Thirty-two participants in the control group were administered questionnaires twice – one week apart, while no session was provided in the meantime. We used the following methods for data collection: Brief Symptom Inventory (BSI), Clinical Outcomes in Routine Evaluation - Outcome Measure (CORE-OM), Individual Symptoms Scale (ŠIP), and Outcome Rating Scale (ORS). The effect of process-oriented approach was assessed using a two-way ANOVA for repeated measures, supplemented by Tukey's post-hoc test and descriptive statistics on subjective session rating scales.

Results. Compared to the control group, the experimental group clients displayed a subjective alleviation of reported symptoms, a significantly larger improvement in subjective well-being, and higher satisfaction (in society) after the session.

Conclusions. Process-oriented approach to working with body symptoms seems to be effective in reducing the severity of subjectively reported symptoms and increasing well-being and satisfaction in society.

Keywords: Process-oriented Psychology, Process Work, body symptoms, psychosomatics, psychotherapy

Received: 30.05.2020
Revised: 29.09.2020
Accepted: 06.10.2020

International Body Psychotherapy Journal
The Art and Science of Somatic Praxis

Volume 19, Number 2,
Fall/Winter 2020/2021, pp. 43-55

ISSN 2169-4745 Printing, ISSN 2168-1279 Online

> ***The marginalized aspect of a client's wholeness will emerge as a disturbing signal...***

Most psychotherapeutic approaches work with clients' thought awareness, i.e., their inner conflicts, relationships, workplace problems, trauma, fears, discontentment, etc., and only a few of them include body awareness and body symptoms in the therapeutic work (Tress, Krusse & Ott, 2008).

However, in accordance with the current holistic paradigm, the etiology of illness is complex, including physical, mental, and social factors (Faleide, Lian & Faleide, 2010; Morschitzky & Sator, 2007), and a large portion of clinical and empirical literature is devoted to this issue (Bauer & Kächele, 2005; Bob & Vymětal, 2005; Grawe, 2007). There also exist medically unexplained physical symptoms (hereinafter referred to as MUPS) which can relate to somatic illness, whose etiology has not been satisfactorily explained (Řiháček, Pavlenko & Franke, 2017). Moreover, there are also several other illnesses generally considered to be caused mostly psychologically (Tress, Krusse & Ott, 2008).

Bob & Vymětal (2005) state that the goal of psychotherapy should be to influence the mind and body's health through the psychotherapeutic effect on clients' biological function. Research in this

area seems to be crucial. Exploration of the psychotherapeutic effect is essential to the development and application of functional methods in psychological practice (Timuľák, 2005).

Process-oriented Psychology (also called Process Work) is a phenomenological approach developed in the 1970s by Arnold Mindell, who researched body symptoms and Jungian analysis of dreams (Diamond & Jones, 2005). It is used by hundreds of psychotherapists and facilitators around the world in the fields of psychotherapy, psychiatry, social work, conflict resolution, group work, coma care, organizational change, and community building (Diamond & Jones, 2005). Exploration of symptoms can give clients meaning; for instance, symptoms can be perceived as a reaction to something or a direction of change in life (Mindell, 2001; Morin, 2019; Weyermann, 2006). In Process-oriented Psychology, the main goal is to bring awareness to what is happening right now (Diamond & Jones, 2005). The attention of the therapist is divided between two processes:

1. Noticing signals of identity, which are close to personal awareness and include elements with which the client is identified (primary process)
2. Marginalized elements (secondary process) (Diamond & Jones, 2005)

By marginalized, we mean that they are set aside from the focus of identity. Sometimes they are unconscious but could be also conscious – but we do not follow them. Signals of these two processes emerge in different ways, through channels. Channels are divided into: visual, auditory, movement, proprioceptive, relational, and world channel (Diamond & Jones, 2005). The marginalized aspect of a client's wholeness will emerge as a disturbing signal (e.g., a symptom) (Mindell, 1990). By unfolding this signal with sensory-grounded awareness, we unravel, in a more tangible way, a new quality to which the client did not have access before (Mindell, 1998). Through unfolding this quality, the client can then experience a "dream figure", that is, an embodied experience of the originally marginalized quality (Mindell, 1990). The last part of the work includes integration of the experience into the client's daily life (Diamond & Jones, 2005).

Although Process-oriented Psychology is used by practitioners around the world who present cases and qualitative research results featuring the benefits of this method (Fukao *et al.*, 2007; Mindell, 2001; Morin, 2019; Panáková, 2003; Weyermann, 2006), quantitative research is missing. However, there already exist several studies presenting other psychotherapeutic methods of working with a client's body symptoms bringing encouraging results (Akasheh & Sadoghi, 2010; Limburg *et al.*, 2018; Lyonne *et al.*, 2012; Rutledge, Redwine, Linke & Mills, 2013).

The above-mentioned findings inspired us to conduct a study by using additive design. In the additive design, a specific ingredient is added to an existing treatment (Borkovec, 1990), and so there is a reason to believe that the ingredient added to the treatment will augment the benefits derived from the treatment (Ahn & Wampold, 2001). The main hypothesis is to find out whether using the Process-oriented Psychology method can cohere with subjective decrease of symptoms and an increase in well-being and satisfaction.

Methods

Participants

Clients. Sixty-seven clients (47 females and 20 males) participated in this study. Their age varied between 18 and 63 (mean = 38.4, SD = 11.3). The sample represented three types of clients: 31 participants were hospitalized in psychiatric clinics, 26 regularly attended a psychological outpatient facility, and 10 clients were individuals experiencing common medical care and self-supportive methods (such as yoga, meditation, and physical exercise). Hospitalized and psychological outpatient facility clients represented a variety of mental illnesses: 46 were diagnosed with anxiety, stress-related and somatoform disorders, and 11 with affective (mood) disorders.

Symptoms. Each participant chose one symptom to work with on the experimental session. In the experimental group, the following symptoms were treated: anxiety and nervousness (14), digestive diseases (4), back and joint pain (4), headache (3), body pain (3), respiratory diseases (3), eczema (1), sleep disorders (1), varices (1), and eye diseases (1). The control group was concerned with these symptoms: anxiety and nervousness (13), digestive diseases (5), back and joint pain (3), eczema (3), body pain (2), sleep disorders (2), respiratory diseases (2), headache (1), and eye diseases (1). Forty-nine participants described the chosen symptom as chronic, and 19 as acute. Further, nine participants mentioned that they suffered from other mental problems, 14 from somatic symptoms, and 44 from both. Twenty-one participants were regularly taking psychopharmaceuticals, nine participants somatic medication, 19 both, and 18 were not using regular medication.

Procedure

Recruitment. The selection criteria were as follows: men and women aged 18-65, hospitalized in psychological outpatient facilities (with diagnosis of F3 or F4 categories in ICD-10) or using self-healing methods, currently having a body symptom that they would like to explore (except oncological symptoms). The exclusion criteria were as follows: clients with diagnoses of F0, F1, F2, or F6 categories in ICD-10 attending another individual psychotherapy session during involvement in our research. The participants were selected through a non-random sampling mediated by institutions (Miovský, 2006). Potential participants received informa-

tion about the research via handouts distributed in the institution (at two wards in a psychiatric clinic, at four offices in two psychological outpatient facilities, and in one place of group meditation), or during communication with their therapist. Of the total of 71 participants, 67 were analyzed. Two participants didn't complete the questionnaires, and two did not meet the inclusion criteria.

Participants were randomly assigned to a control or experimental group using an alternating assignment during the recruitment process; i.e., we assigned odd participants to the control group, and even participants to the experimental group. The control group consisted of 32 participants, with treatment as usual. The experimental group included 35 participants who attended one experimental session to work with one of their symptoms, in addition to their usual treatment. Participants from the control group, however, received a session later, so that none were denied potential benefits of the method. Informed consent was obtained from all participants in written form.

Table 1 presents detailed demographic data broken down by groups.

Study design. The first author (female with almost five years of full-time therapeutic and diagnostic practice, attending the second phase of the diploma training in Process-oriented Psychology) conducted experimental sessions and administered a questionnaire one week apart, while simultaneously collecting data individually from each participant. Participants from the experimental group underwent an experimental session (hereinafter referred to as session) using process-oriented approach, and were administered the questionnaires named below immediately before, immediately after, and one week following the session. Participants in the control group were administered questionnaires twice, one week apart, while no sessions were provided in the interim. The research complied with ethical conditions for psychological research by APA.

Test battery. Participants from the control group completed the following methods on the first questionnaire that was administered: Demographic questionnaire, Brief Symptom Inventory (BSI), Clinical Outcomes in Routine Evaluation – Outcome Measure (CORE-OM), Individual Symptoms Scale (ŠIP), and Outcome Rating Scale (ORS). On the second questionnaire that was administered one week later, the test battery was identical, except for the missing demographic questionnaire.

Participants in the experimental group completed the following methods right before the session: Demographic questionnaire, BSI, CORE-OM, ŠIP, and ORS. Immediately after the session, they completed the ŠIP for the second time. One week later, the questionnaire administration was the same as the second administration for the control group. All methods were administered in the Czech language.

Brief Symptom Inventory (**BSI**) is a shorter, multidimensional version of the Symptom-Checklist 90-R (SCL 90-R), the questionnaire used to detect the presence of psychopathological symptoms (Derogatis, 2017; Derogatis & Melisaratos, 1983). The instrument consists of 53 items using a five-point Likert scale covering nine subscales: Somatization, Obsession-Compulsion, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic anxiety, Paranoid ideation, and Psychoticism, as well as three general indexes: Global Severity Index (GSI), Positive Symptom Total (PST), and Positive Symptom Distress Index (PSDI) (Derogatis & Melisaratos, 1983). The psychometric properties of the Czech version of the method were investigated by Kabát *et al.* (2018). The nine-factor model was found to be valid, the method exhibited satisfying level of internal con-

Table 1 *Demographics data by groups*

Demographics	Experimental group	Control group
Mean age (SD)	40.57 (10.47)	36.03 (11.79)
Sex (frequencies)		
Male	13	7
Female	22	25
Client type (frequencies)		
non-clinical	6	4
clinical, inpatient	16	15
clinical, outpatient	13	13
Diagnosis (frequencies)		
Anxiety, stress-related and somatoform disorders	21	25
Affective disorders	8	3

sistency (Cronbach's α = 0.97, McDonald coefficients ω_h = 0.84 and ω_t = 0.97), and its convergent validity was supported by moderate-to-high correlation with the related SF-8 questionnaire. The Global Severity Index, representing BSI total score, showed excellent internal consistency (Kabát *et al.*, 2018).

Clinical Outcomes in Routine Evaluation – Outcome Measure (**CORE-OM**) is a 34-item self-report instrument developed for monitoring changes in clients during therapy within four domains: well-being, symptoms, function and risk (Evans *et al.*, 2002). We administered the Czech version of the method, followed the four-factor model recommended for the similar Slovak version of CORE-OM (Bieščad, 2007), and analyzed the total score and the well-being, symptoms, and function factors accordingly (the risk factor was of little interest to us, as this study did not focus on risky behavior). After we finished data collection, a study of psychometric properties of the Czech version of CORE-OM was published (Juhová *et al.*, 2018), showing satisfying internal consistency (Cronbach's α = 0.933) and parallel validity, demonstrated by moderate-to-high correlation with related methods (SCL-90 and RSES). Juhová (2015) also demonstrated test-retest reliability by r = 0.70. However, the recent study (Juhová *et al.*, 2018) showed little support for the four-factor model of CORE-OM. With regard to recommendations given by these authors, we will in this paper present only the CORE-OM total score.

Individual Symptoms Scale (**ŠIP**) is a Czech self-report instrument created by Professor Kratochvíl to evaluate the effect of psychotherapy (Timuľák, 2005). The instrument contains 10 empty boxes where the client writes symptoms and evaluates them on a prescribed five-point scale. At the end of treatment, the client receives the completed form with initial symptoms, and evaluates them again (Kratochvíl, 2006). The difference between the score before and after the therapy is an indicator of changes (Kratochvíl, 2006). The instrument is widely used in the Czech psychotherapeutic domain as well as in research (Turbová & Cargaš, 2004).

Outcome Rating Scale (**ORS**) is an instrument to evaluate the effect of therapy, and is based on the concept of the widely-used OQ-45 questionnaire (Miller, Duncan, Brown, Sparks & Claud, 2003). The ORS includes four visual 10-centimeters long analog scales: personal (personal satisfaction), in relationships (family, close relationships), in society (work, school, friends) and overall (total satisfaction) (Zatloukal, Žákovský, Věžník, Řiháček & Tkadlčíková, 2006). The client's task is to rate the scales by marking how satisfied they felt in the given area during the previous week. Preliminary analyses of psychometric properties of ORS show satisfying internal consistency (Cronbach's α = 0.80), lower test-retest reliability (test-retest r = 0.58), and low-to-moderate correlation to related methods SCL-90 and RSES (Juhová, 2015).

Experimental Session

We were inspired by a previous qualitative study conducted by Weyermann (2006) and consulted it with skilled process-oriented therapist Ivan Verný. The session represented both structured and creative work by using Process-oriented Psychology and lasted between 50 and 60 minutes.

Step 1: ***Primary identity***. Participants were questioned about their everyday identity: Who were they during the last few days, and who are they today? How do they live?

Step 2: ***Symptom description***. Participants described a symptom they have chosen, as well as their attitude to the symptom, and explained how they perceived it.

Step 3: ***Symptom drawing***. In this step, participants simply drew themselves with the symptom and named it.

Step 4: ***Disturbing quality***. Participants described the symptom and its manifestations in detail. A sensory-based description was used (for instance warmth, tingling, pressure), and the most disturbing quality was identified.

Step 5: ***Amplification***. Further on, the participants were supported to develop the quality in the way it emerged (through movement, proprioception, sound, imagination). At the end, the quality was given a form of a mythological or historical entity – "a dream figure" – that represents this quality naturally.

Step 6: ***Self-drawing***. Participants drew themselves with the identified embodied quality, named it, and were questioned about their current attitude toward the symptom.

Step 7: ***Integration***. Participants were asked a few questions to help integrate the experience into their everyday life. For example: Where and when have they already noticed this quality in their life? When and how could this quality be helpful in their current life?

Step 8: ***Encouragement***. Finally, participants were encouraged to return to the discovered quality or mythological figure, and to try to experiment with it during the following week.

Analysis

All available data were aggregated in an MS Excel spreadsheet. We used MS Excel version 1902 to detect and remove outliers (based on the Tukey's 1.5 × IQR rule, see Tukey, 1977), and to analyze demographical data (i.e., clients' ages and clinical backgrounds). The rest of the data were analyzed in Tibco Statistica 13.3 software using ANOVA for repeated measures, followed by Tukey's post-hoc tests in the case of significant results. Residual normality assumption for ANOVA was checked by using the Shapiro-Wilk test. In the case of suspected non-normality, the original data were transformed using natural logarithm[1] and the analysis was performed again. Log-transformation has traditionally been used to correct positively skewed data (Bland & Altman,

1996), although its use bears significant limitations and might even fail to normalize the data (Feng *et al.*, 2014). If log-transformation failed, the fact was noted by the respective results, together with information on whether corrected (i.e. log-transformed) or uncorrected data were used for the final analysis. We used parametric ANOVA for repeated measures even if the ANOVA assumptions could not be fully satisfied, for two reasons. One is that from its principle, it is possible for the Shapiro-Wilk test to yield false positive results in larger samples, simply because statistical test sensitivity generally increases with increasing sample size. Second, we are unaware of a non-parametric substitute for two-way repeated measures factorial ANOVA. Therefore, we proceeded with the parametric analyses even in cases of suspected violation of ANOVA assumption while transparently admitting the fact.

Results

Before further analyses, the experimental and control groups were checked for differences in sex ratio, age, education, and subjectively reported symptoms severity on a scale from 1 to 10. No significant difference between the experimental and control group was found for sex ratio ($\chi^2(1) = 1.861$, $p = 0.173$), age ($t(65) = 1.669$, $p = 0.100$), education ($\chi^2(4) = 4.017$, $p = 0.404$), or reported symptom severity ($t(65) = 0.738$, $p = 0.463$).

Changes due to therapeutic work were analyzed separately for individual scores, which were identified to be of interest to the present research.

In **Brief Symptom Inventory** (BSI), we were specifically interested in Global Severity Index (GSI) and Somatization subscale. In the case of GSI, the model built on original pre-test/post-test data led to non-normal residual distribution ($W = 0.959$, $p = 0.031$ and $W = 0.927$, $p < 0.001$). Therefore, we modified the GSI scores by adding 1 and subsequently performing log-transformation, which helped to correct the pre-test residuals ($W = 0.985$, $p = 0.623$), but the post-test residuals remained non-normal ($W = 0.961$, $p = 0.039$). We decided to use the corrected data for the analysis. We found a significant main effect of measurement ($F(1,63) = 33.881$, $p < 0.001$, $\eta_{partial}^2 = 0.350$), suggesting a difference in GSI scores between the first and second data collection regardless of group. We did not find a significant main effect of group ($F(1,63) = 1.037$, $p = 0.312$, $\eta_{partial}^2 = 0.016$), which suggests that the experimental and control groups did not overall differ in their ratings. Most crucially, however, we found a significant interaction between measurement and group ($F(1,63) = 6.238$, $p = 0.015$, $\eta_{partial}^2 = 0.090$). After inspecting the results of Tukey's post-hoc test, this was mostly due to a significant decrease of reported symptom incidence between the two measurements in the experimental group ($p < 0.001$), which, by contrast, is insignificant in the control group ($p = 0.118$). No difference was found between the groups in the pre-test ($p = 0.993$). For an overview of GSI analysis results, see Figure 1a.

For the **Somatization** subscale in BSI, the results are strikingly similar to GSI scores. The residuals calculated from the model based on the original data were non-normally distributed ($W = 0.956$, $p = 0.024$ for the pre-test and $W = 0.945$, $p = 0.007$ for the post-test). Therefore, we log-transformed the Somatization scores, which increased by 2. Again, the pre-test residuals were successfully corrected ($W = 0.971$, $p = 0.137$) while post-test residuals remained non-normally distributed ($W = 0.957$, $p = 0.028$). We conducted an analysis on the corrected data. We found significant effect of measurement ($F(1,61) = 9.259$, $p = 0.003$, $\eta_{partial}^2 = 0.132$), while the main effect of group remained insignificant ($F(1,61) = 0.070$, $p = 0.793$, $\eta_{partial}^2 = 0.001$). The interaction between measurement and group is significant ($F(1,61) = 4.288$, $p = 0.043$, $\eta_{partial}^2 = 0.066$). Tukey's post-hoc test clearly shows this to be due to a significant decrease in reported symptoms in the experimental group ($p = 0.002$), while the corresponding difference in the control group remains insignificant ($p = 0.911$). Furthermore, no significant difference was found between the groups in pre-tests ($p = 0.907$). For an overview of Somatization subscale analysis, see Figure 1b.

Identical analysis was applied to the overall score of **Clinical Outcomes in Routine Evaluation – Outcome Measure** (CORE-OM). The original data led to normally distributed residuals in the pre-test ($W = 0.975$, $p = 0.202$), but non-normal residual distribution in the post-test ($W = 0.956$, $p = 0.019$). Therefore, we log-transformed the CORE-OM data, which increased by 3, by which we achieved normal residual distribution for both pre-test ($W = 0.981$, $p = 0.387$) and post-test ($W = 0.967$, $p = 0.080$). We used the corrected data for the analysis. A significant main effect of measurement was found ($F(1,64) = 14.121$, $p < 0.001$, $\eta_{partial}^2 = 0.181$), while the main effect of group was insignificant ($F(1,64) = 1.979$, $p = 0.164$, $\eta_{partial}^2 = 0.030$). A significant interaction of measurement and group was found ($F(1,64) = 5.921$, p = 0.018, $\eta_{partial}^2 = 0.085$) and further supported by Tukey's post-hoc test, showing significant improvement in the experimental group ($p < 0.001$), while this difference remained insignificant in the control group ($p = 0.800$). The groups did not significantly differ in the pre-test scores ($p = 0.925$). For an overview of CORE-OM analysis, see Fig.2.

Unlike the previous cases, the **Individual Symptoms Scale** (ŠIP) was analyzed in two ways, because in the experimental group it was administered immediately before, immediately after, and one week after the session (unlike the other methods, which were administered only twice – before the session and one week

1. In some cases, integer 1, 2, or 3 was added to all values to avoid calculating logarithm from values equal to or near 0.

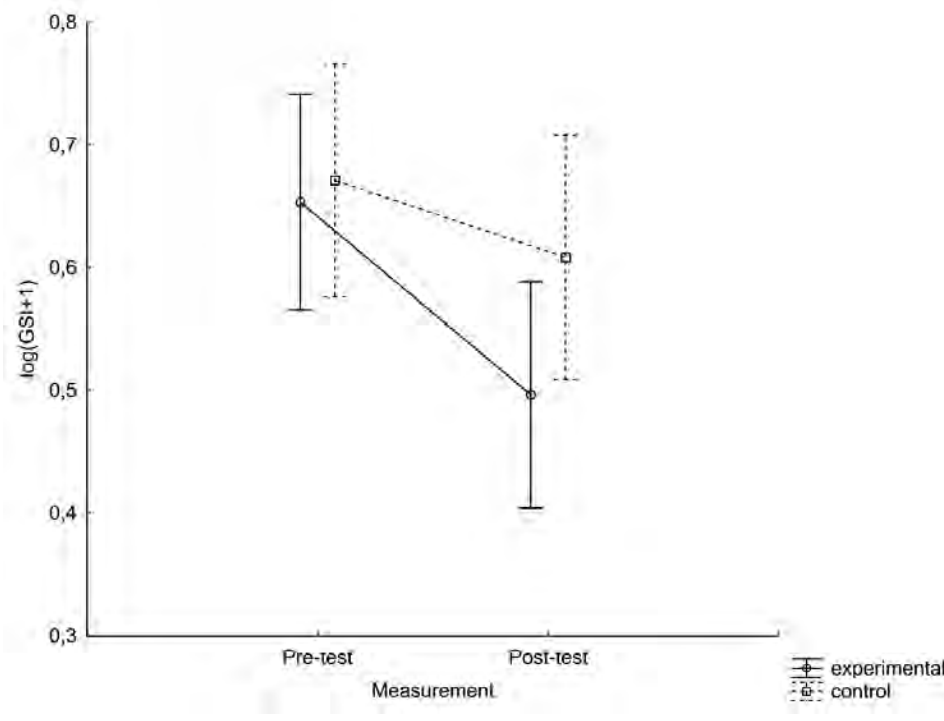

Figure 1a *Shift in the means of GSI score between pre-test and post-test for the experimental and control group. The vertical lines denote 95% confidence intervals.*

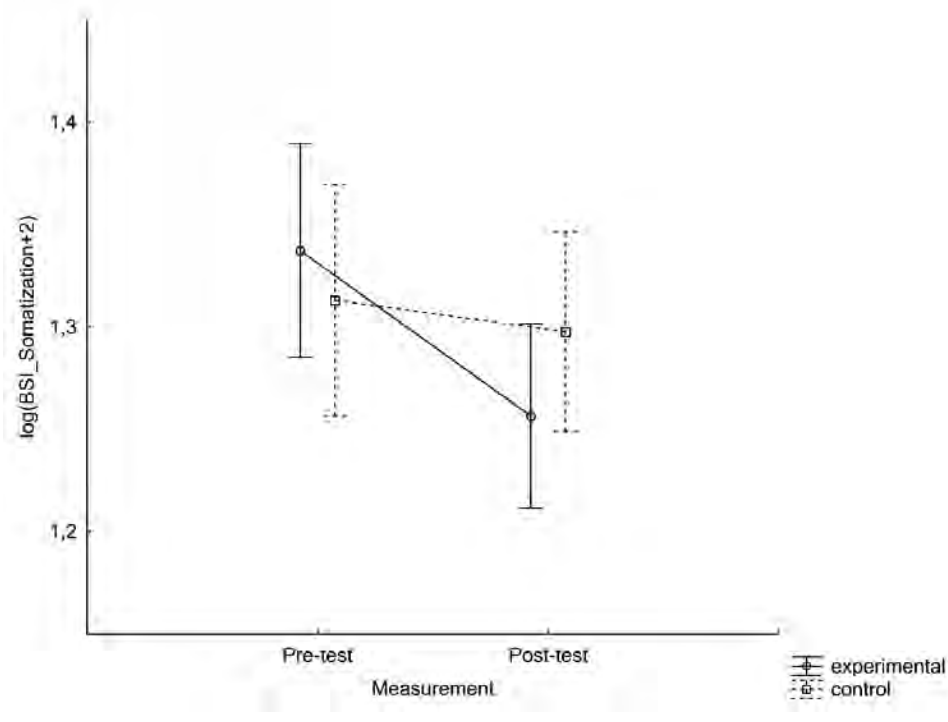

Figure 1b *Shift in the means of BSI somatization score between pre-test and post-test for the experimental and control groups. The vertical lines denote 95% confidence intervals.*

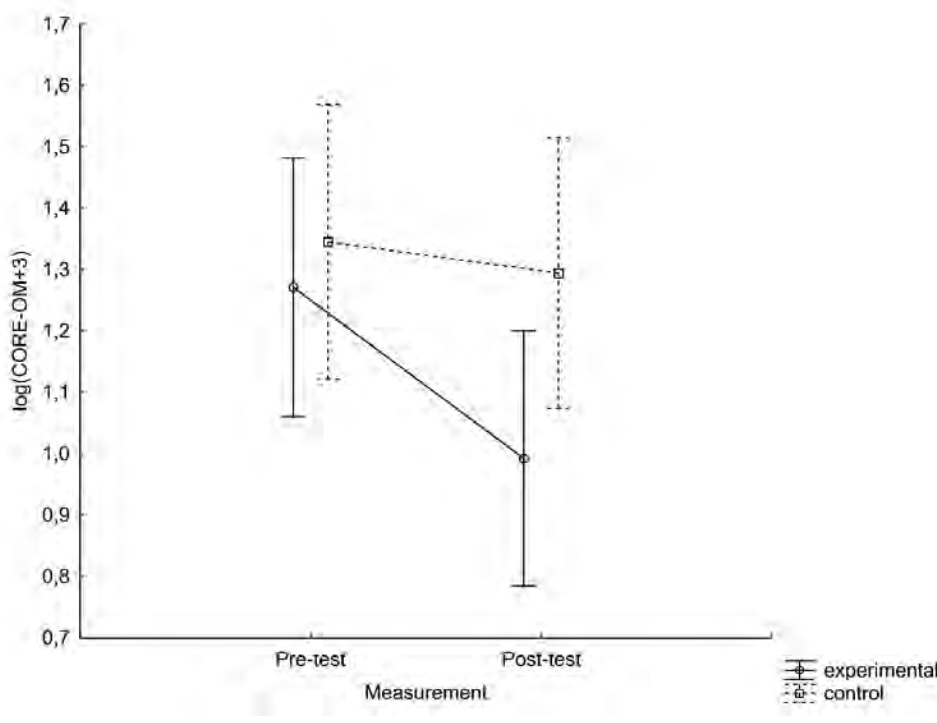

Figure 2 *Shift in the means of CORE-OM overall score between pre-test and post-test for the experimental and control groups. The vertical lines denote 95% confidence intervals.*

later). Therefore, while the first analysis follows the pre-test/post-test template presented so far, the second analysis adds a within-subject repeated-measures comparison of situations before, right after, and one week after the experimental session. The first analysis was conducted on the uncorrected data, since no deviation from normal distribution was found in either the pre-test (W = 0.967, p = 0.087) or the post-test residuals (W = 0.978, p = 0.323). The outcomes of the model show a significant main effect of measurement ($F(1,61)$ = 54.556, p < 0.001, $\eta_{partial}^2$ = 0.472), a significant main effect of group ($F(1,61)$ = 7.288, p = 0.009, $\eta_{partial}^2$ = 0.107) and significant interaction between measurement and group ($F(1,61)$ = 5.332, p = 0.024, $\eta_{partial}^2$ = 0.080). Tukey's post-hoc test revealed a significant decrease in reported symptoms in both the experimental and the control group s (p < 0.001 and p = 0.006 respectively). However, the improvement seemed larger in the experimental group because, while no significant difference between the groups was found in the pre-test (p = 0.795), a significant difference was found in the post-test (p = 0.003). For the ŠIP results overview, see Fig. 3a.

The additional analysis of the ŠIP data aimed to examine the within-subject differences of the ŠIP score before, immediately after, and one week after the session in the experimental group. The residual normality assumption was satisfied for all three consecutive measurements (W = 0.951, p = 0.139; W = 0.967, p = 0.404 and W = 0.938, p = 0.061, respectively). The one-way repeated-measures ANOVA showed a significant main effect of measurement ($F(2,64)$ = 77.236, p < 0.001, $\eta_{partial}^2$ = 0.707). The main effect of group cannot be assessed, because no control comparison was available for the situation right after the session. Tukey's post-hoc test revealed that all examined differences are significant – there was a significant decrease of the reported problems right after the session compared to before the session (p < 0.001), a milder, but still significant increase in the reported problems one week after the session, compared to right after the session (p < 0.001), but also a significant decrease between the measurement before the session and one week later (p < 0.001). For an overview of the results, see Figure 3b.

The Outcome Rating Scale (ORS) contained four scales that are of interest to us (personal, in relationships, in society and overall). All four scales exhibited negatively skewed residual distribution (see Table 2).

Logarithmic transformation did not help correct the data, as it is used to correct positively-, not negatively skewed distributions. Therefore, a parametric ANOVA was used, but caution is advised in interpreting the results. For detailed results, see Table 3. In the case of all four ORS scales, the main effect of measurement was significant in all scales. The main effect of group was insignificant in all scales. The only significant in-

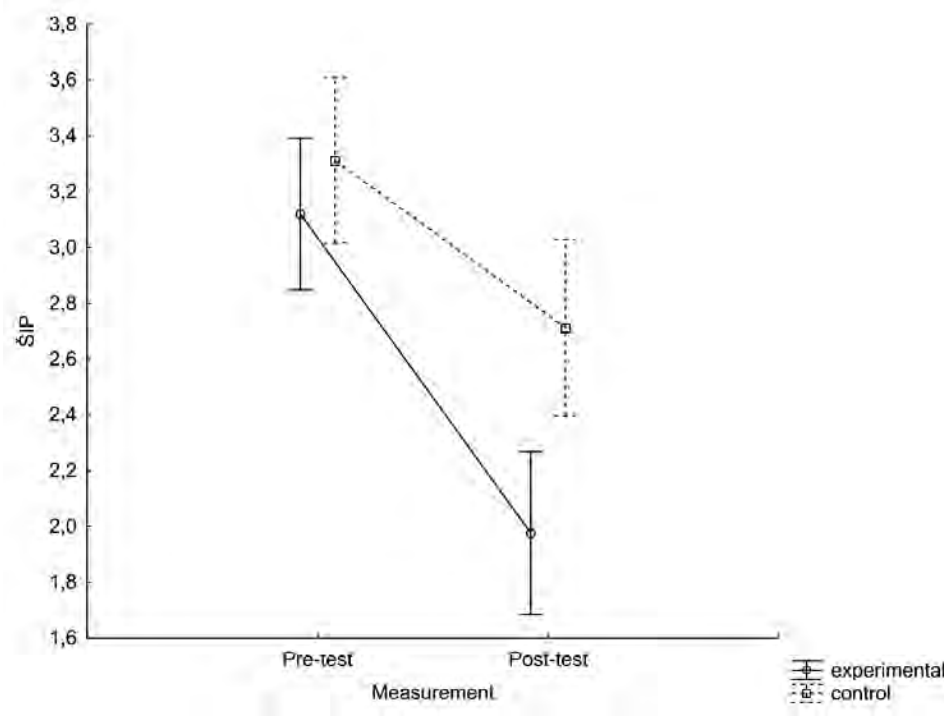

Figure 3a *Shift in the means of ŠIP score between pre-test and post-test for the experimental and control groups. The vertical lines denote 95% confidence intervals.*

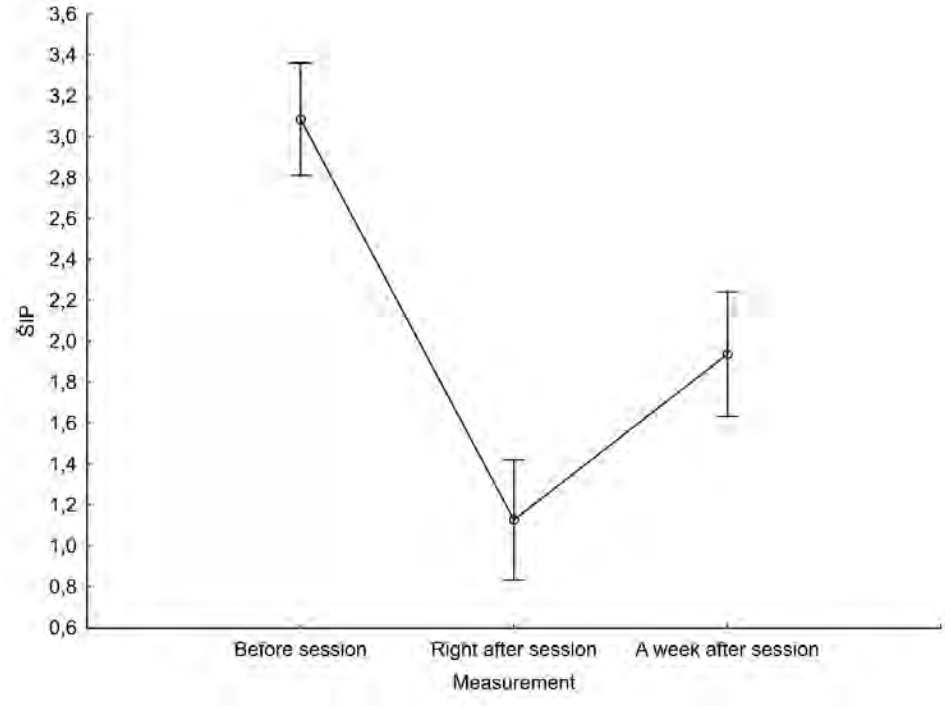

Figure 3b *Shift in the means of ŠIP score between measurements before the session, right after the session and one week after the session. The vertical lines denote 95% confidence intervals.*

Table 2 *Shapiro-Wilk test results for the ORS subscales*

Scale	$W_{pre-test}$	$p_{pre-test}$	$W_{post-test}$	$p_{post-test}$
Personal	0.952	0.012*	0.932	0.001**
In relationships	0.945	0.005**	0.903	< 0.001***
In society	0.948	0.007**	0.936	0.002**
Overall	0.942	0.004**	0.934	0.002**

Note: * signifies $p < 0.05$, ** signifies $p < 0.01$, and *** signifies $p < 0.001$

teraction between measurement and group was found in the in-society scale, which Tukey's post-hoc test clearly showed to be due to differences between the first and second measurements in the experimental group ($p < 0.001$), while other differences remained insignificant. Interactions between measurement and group in all other scales were insignificant. Even though these interactions were found to be insignificant, Tukey's post-hoc test revealed a significant difference between the first and second measurements in the experimental group ($p = 0.042$ for personal scale; $p = 0.002$ for in relationships scale; and $p = 0.002$ for overall scale), while the corresponding difference was not found to be significant in the control group ($p = 0.955$ for personal scale; $p = 0.233$ for in relationships scale; and $p = 0.695$ for overall scale). No significant difference was found between the groups in the pre-test ($p = 0.992$ for personal scale; $p = 0.710$ for in relationships scale; $p = 0.744$ for in society scale and $p = 0.990$ for overall scale).

Discussion

In our study, both GSI and Somatization subscales in BSI were found to be influenced by interaction between group (experimental and control) and measurement (before and after the session for the experimental group, or before and after the waiting period for the control group). Post-hoc tests revealed this to be due to a decrease in symptom severity in the experimental group, clearly suggesting that process-oriented approach to working with body symptoms lowers the reported severity of experienced symptoms.

Table 3 *ANOVA results for the ORS subscales*

Scale	$F(1,65)$	p	$\eta_{partial}^2$
Personal			
Measurement	5.032	0.028*	0.072
Group	0.092	0.763	0.001
Interaction	2.250	0.138	0.033
In relationships			
Measurement	16.216	< 0.001***	0.200
Group	2.499	0.119	0.037
Interaction	1.593	0.211	0.024
In society			
Measurement	7.546	0.008**	0.104
Group	0.009	0.926	0.001
Interaction	9.488	0.003**	0.128
Overall			
Measurement	11.325	0.001**	0.148
Group	0.949	0.334	0.014
Interaction	3.190	0.079	0.047

Note: * signifies $p < 0.05$, ** signifies $p < 0.01$, and *** signifies $p < 0.001$

A similar effect was found in CORE-OM and ŠIP. Nevertheless, contrary to our expectations, the control group reported a significant decrease in ŠIP, although to a lesser extent than the experimental group. This could be attributed to the attention the clients gave to their symptoms while completing the ŠIP scale, which might have led to actual relief due to simple externalization of the reported symptoms. An alternative explanation might be that mere expectation of the upcoming treatment might induce a drop in reported symptom severity.

Additionally, we analyzed ŠIP data with regard to reported symptom severity before, right after, and one week after the session to examine the course of the change in more detail. The results shown in Figure 3b show a large drop in reported symptom severity immediately after the session, followed by a slight, although significant, increase during the follow-up week period. It should be noted that this three-time-point analysis is limited, as we cannot conclusively attribute the effect to process-oriented approach due to a relevant control group missing from our methodological arrangement. Further research in the temporal course of the effects of Process-oriented Psychology might be needed, especially with a focus on longer-term effects (months or years).

The ORS contains four scales generally reflecting changes in respondents' satisfaction attributable to the therapy. Post-hoc tests on all of these four scales showed a significant increase of subjective well-being in the experimental group, while in the control group it did not. However, a significant effect of the interaction between measurement and group was found only in the in-society scale, so the results should be accepted with caution.

A review of all analyzed scales (GSI, BSI Somatization, CORE-OM, ŠIP and all ORS subscales) also revealed a significant main effect of the measurement, suggesting that certain improvements might be found in both the experimental and control groups. Nevertheless, this is not surprising, because all participants, including those in the control group, were subjected to treatment "as usual," and so a certain amount of improvement was to be expected. A larger degree of improvement in the experimental group in most scales, however, still supports the idea of effectiveness of process-oriented approach to working with body symptoms. Results of this study may supplement theoretical literature and scarce empirical research of Process-oriented Psychology and similar methods. Generally, the process-oriented psychology literature says that examining the subjective experience of symptoms can broaden perception of who we are, and support self-healing potential (Mindell, 2001; Mindell, 2004; Morin, 2019; Weyermann, 2006). Unfortunately, no such quantitative research of Process-oriented Psychology has been done yet, so we do not have the opportunity to compare our results to previous studies.

Limits and Future Research Implications

Symptoms. In our study, symptoms were understood as disturbing body manifestations, regardless of whether they were acute or chronic. For a future study, it would be interesting to focus on one specific group of symptoms.

Participants. The sample represents a population of individuals suffering from personal problems and body symptoms motivating them to seek treatment in some form. Selecting only certain defined groups of clients in a future study would allow us to compare these groups, and to obtain more specific findings.

Study design. The method we used for the data creation – i.e., quantitative analysis of repeated measures – is listed by Timuľák (2005) as one of the recommended methods for studies of psychotherapy's effect and is commonly used in similar psychotherapy research design. Using self-report questionnaires limits the full range of variables possibly worth examining. Although participants were supported to answer truthfully and be critical in questionnaires, the Hawthorne effect (participants know that they are part of an experiment and could react in ways they want in order to please the experimental therapist) might be involved in the results (Adair, 1984). So it is advisable that further research employ different methods for data collection.

Data analysis. Even though log-corrected GSI and BSI Somatization scores exhibited normal distribution in the first measurement, the data tended to shift into positively skewed distribution in the second measurement. The same phenomenon can be observed in the entire ORS scale, even though in those cases, the residual distribution was not normal, even in the pre-test. This was clearly caused by the tendency of the participants in the experimental group to report an improvement, while control group participants reported only a small, mostly insignificant, improvement. Even though none of our analyses contradict each other, a different approach to statistical analyses might be utilized in future research, although as stated earlier, we are unaware of a non-parametric substitute used for two-way repeated measures factorial ANOVA.

Amount of psychotherapy. Lambert, Hansen & Finch (2001) consider that two criteria predicted improvement in psychotherapy related to the number of sessions completed: severity of input problems, and early positive response to therapy (which means that the client improved rapidly during the first three sessions). However, a larger number of sessions in future research on this topic should be a promising step.

Dual role – researcher and therapist in one person. Given that our study is a first step on this topic, it was clear from the beginning that only a small team of researchers would be available. We made sure that the primary data analysis was carried out by the second author,

who was not subjected to being in a dual role, and that the researcher with a dual role was maximally flexible between the role of therapist and researcher. A promising step for a future study would be to separate the two roles between two independent researchers.

Conclusion

The presented study offers encouraging findings, where using process-oriented approach to working with body symptoms seems to be effective in reducing the severity of subjectively reported body symptoms, and increasing well-being and satisfaction (in society).

Practitioner Points

- This article presents a research study using process-oriented approach to working with body symptoms in 67 clients randomized into experimental and control groups.
- Process-oriented approach seems to be effective in reducing the severity of subjectively reported body symptoms, and increasing well-being and satisfaction (in society).
- The study findings are encouraging, support the psychosomatic approach, and suggest including working with body symptoms in psychotherapy by using Process-oriented Psychology.

PhDr. Mgr. Barbora Sedláková, PhD is currently in a postgraduate program in Clinical Psychology. She has five years of full-time therapeutic and diagnostic practice and is in the second phase of diploma training in Process Work. In 2019-2020, as a part of her PhD studies, she went for an internship at the River's Way Clinic at the Process Work Institute in Portland, Oregon, USA.

Department of Psychology, Faculty of Arts, Palacký University Olomouc, Czech Republic

Email: sedlakova.ba@gmail.com

Mgr. Tomáš Dominik, PhD holds a PhD in Clinical Psychology and has six years of experience in quantitative methodology.

Department of Psychology, Faculty of Arts, Palacký University Olomouc, Czech Republic

PhDr. Marek Kolařík, PhD is assistant professor of psychology with expertise in family therapy and an extensive background in research and project methodology.

Department of Psychology, Faculty of Arts, Palacký University Olomouc, Czech Republic

REFERENCES

Adair, J. G. (1984). The Hawthorne effect: A reconsideration of the methodological artifact. *Journal of Applied Psychology*, 69(2), 334-345. doi.org/10.1037/0021-9010.69.2.334

Ahn, H., & Wampold, B. E. (2001). Where oh where are the specific ingredients? A meta-analysis of component studies in counseling and psychotherapy. *Journal of Counseling Psychology*, 48(3), 251-257. doi:10.1037/0022-0167.48.3.251

Akasheh, G., & Sadoghi, M. (2010). The Effectiveness of Cognitive Behavioral Therapy on Reduction of Chronic Tension Headache. *European Psychiatry*, 25, 1073-1073. doi:10.1016/S0924-9338(10)71063-4

Bauer, J., & Kächele, H. (2005). Das Fach "Psychosomatische Medizin: Seine Beziehungen zur Neurobiologie und zur Psychiatrie. *Psychoterapie,* 10(1), 14-21.

Bieščad, M. (2007). *Aplikácia nástrojov merajúcich výsledky psychoterapie. Porovnanie citlivosti nástrojov merania v jednotlivých oblastiach terapeutickej zmeny* (Unpublished dissertation thesis). Trnava, Slovakia: University of Trnava.

Bland, J. M., & Altman, D. G. (1996). Transformations, means, and confidence intervals. *BMJ : British Medical Journal,* 312(7038), 1079.

Bob, P., & Vymětal, J. (2005). Psychobiologické reakce na stres a trauma. *Česká a Slovenská psychiatrie,* 101(8), 425-432.

Borkovec, T. D. (1990). Control groups and comparison groups in psychotherapy outcome research. *National Institute on Drug Abuse Research Monograph,* 104, 50-65.

Derogatis, L. R. (2017). Symptom checklist-90-revised, brief symptom inventory, and BSI-18. In M. E. Maruish, *Handbook of Psychological Assessment in Primary Care Settings* (2nd ed., pp. 599-630). New York, NY: Taylor and Francis. doi:10.4324/9781315658407

Derogatis, L. R., & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine,* 13(3), 595-605.

Diamond, J., & Jones, L. S. (2005). *Path made by walking: Process work in practice.* Portland, OR: Lao Tse Press.

Evans, C., Connell, J., Barkham, M., Margison, F., McGrath, G., Mellor-Clark, J., & Audin, K. (2002). Towards a standardised brief outcome measure: psychometric properties and utility of the CORE-OM. *British Journal of Psychiatry,* 180, 51–60. doi:10.1192/bjp.180.1.51

Faleide, A. O., Lian, L. B., & Faleide, E. K. (2010). *Vliv psychiky na zdraví. Soudobá psychosomatika.* Praha, Czech Republic: Grada Publishing.

Feng, C., Wang, H., Lu, N., Chen, T., He, H., Lu, Y., & Tu, X. M. (2014). Log-transformation and its implications for data analysis. *Shanghai Archives of Psychiatry,* 26(2), 105–109. https://doi.org/10.3969/j.issn.1002-0829.2014.02.009

Fukao, A., Fujimi, Y., Okayama, S., Ushiroyama, T., Nakai, Y., & Toshiaki, H. (2007). The case of female patient with major depression and eating disorder treated successfully by process oriented psychology. *Journal of Psychosomatic Obstetrics & Gynecology,* 28, 279-283.

Grawe, K. (2007). *Neuropsychoterapie.* Prague, Czech Republic: Portál.

Juhová, D. (2015). *Adaptace metod CORE-OM a ORS do českého prostředí* (Unpublished diploma thesis). Brno, Czech Republic: Masaryk University.

Juhová, D., Řiháček, T., Cígler, H., Dubovská, E., Saic, M., Černý, M., . . . Evans, C. (2018). Česká adaptace dotazníku CORE-OM: vybrané psychometrické charakteristiky. *Československá psychologie: časopis pro psychologickou teorii a praxi,* 62(1), 59-74.

Kabát, J., Kaščáková, N., Fürstová, J., Bartůšková, L., Glogar, P., Poláčková Šolcová, I., & Tavel, P. (2018). Psychometrické charakteristiky české verze stručného inventáře příznaků (BSI-53). *Československá psychologie: časopis pro psychologickou teorii a praxi,* 62(1), 19-39.

Kratochvíl, S. (2006). *Základy psychoterapie.* Prague, Czech Republic: Portál.

Lambert, M. J., Hansen, N. B., & Finch, A. E. (2001). Patient-focused research: Using patient outcome data to enhance treatment effects. *Journal of Consulting and Clinical Psychology,* 69(2), 159-172. doi:10.1037/0022-006X.69.2.159

Limburg, K., Schmid-Mühlbauer, G., Sattel, H., Dinkel, A., Radziej, K., Gonzales, M., . . . Lahmann, C. (2018). Potential effects of multimodal psychosomatic inpatient treatment for patients with functional vertigo and dizziness symptoms - A pilot trial. *Psychology and Psychotherapy: Theory, Research and Practise,* 92, 57-73. doi:10.1111/papt.12177

Lyonne, N. L., van Rood, Y., Timman, R., Kooiman, C. G., van't Spijker, A., & Busschbach, J. J. (2012). Effective group training for patients with unexplained physical symptoms: A randomized controlled trial with a non-randomized one-year follow-up. *PLos ONE,* 7(8), p. e42629. doi:10.1371/journal.pone.0042629

Miller, S. D., Duncan, B. L., Brown, J., Sparks, J., & Claud, D. (2003). The outcome rating scale: A preliminary study of the reliability, validity, and feasibility of a brief visual analog measure. *Journal of Brief Therapy,* 2(2), 91-100.

Mindell, A. (1990). *Working on yourself alone. Inner dreambody work.* London, UK: Penguin Books.

Mindell, A. (1998). *Dreambody: The body's role In revealing the self.* Portland, OR: Lao Tse Press.

Mindell, A. (2001). *Working with the dreaming body.* Portland, OR: Lao Tse Press.

Mindell, A. (2004). *The quantum mind and healing. How to listen and respond to your body's symptoms.* Charlottesville, VA: Hampton Roads.

Miovský, M. (2006). *Kvalitativní přístup a metody v psychologickém výzkumu.* Prague, Czech Republic: Grada Publishing.

Morin, P. (2019). *Big medicine: transforming your relationship with your body, health, and community.* Sante Fe, New Mexico: Belly Song Press.

Morschitzky, H., & Sator, S. (2007). *Když duše mluví řečí těla: stručný přehled psychosomatiky.* Prague, Czech Republic: Portál.

Panáková, M. (2003). Práca s telesnými symptómami POP. *Empathia Bulletin,* 37(10), 6-9.

Rutledge, T., Redwine, L. S., Linke, S. E., & Mills, P. J. (2013). A meta-analysis of mental health treatments and cardiac rehabilitation for improving clinical outcomes and depression among patients With coronary heart disease. *Psychosomatic Medicine,* 75(4), 335-349. doi:10.1097/PSY.0b013e318291d798

Řiháček, T., Pavlenko, P., & Pavlenko, H. (2017). Účinnost psychoterapeutických postupů u pacientů s medicínsky nevysvětlenými tělesnými symptomy: Shrnutí metaanalýz a přehledových studií. *Československá psychologie: časopis pro psychologickou teorii a praxi,* 61(4), 350-362.

Timuľák, L. (2005). *Současný výzkum psychoterapie.* Prague, Czech Republic: Triton.

Tress, W., Krusse, J., & Ott, J. (2008). *Základní psychosomatická péče.* Prague, Czech Republic: Portál.

Tukey, J. W. (1977). *Exploratory data analysis.* Reading, MA : Addison-Wesley.

Turbová, J., & Cagaš, P. (2005). Rozdíly obrazu depresivního prožívání dle individuálních škál subjektivních potíží (ŠIP, N-5) uváděných muži a ženami v ambulantní péči. In D. Heller, J. Procházková, & I. Sobotková (Ed.), *Psychologické dny 2004: Svět žen a svět mužů: polarita a vzájemné obohacování: sborník příspěvků z konference Psychologické dny.* Olomouc, Czech Republic: Palacký University Olomouc.

Weyermann, R. (2006). *Subjektives Erleben von Körpersymptomen. Prozessorientierte Entfaltung, Perspektiven und Bedeutungen* (Unpublished dissertation thesis). Basel, Switzerland: University of Basel.

Zatloukal, L., Žákovsky, D., Věžník, M., Řiháček, T., & Tkadlčíková, L. (2006). *Česká verze škál ORS a SRS.* Retrieved November 6, 2018, from Dalet.cz: http://www.dalet.cz/Clanky/scales-CZ.pdf