Depression treated within the mental space paradigm: effectiveness and training requirements.

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Part Two

This is the second part of the original article *Depression treated within the mental space paradigm* that the author(s) have split up in three. Part one discussed the literature on the mental-space paradigm and gave an overview of two studies into the efficacy of the mental space paradigm for therapy, especially the treatment of depression. In part two, we continue this discussion by explaining in more detail the first study conducted. Part three will discuss the second study.

Study one: Treating depression in mental space.

Introduction into former studies conducted

By applying the mental spatial paradigm to clients with depressive symptoms, a great variety of *zones of darkness* was reported (Derks, 2016; Beenhakker & Manea, 2018). In hindsight, clients had always given signals about these phenomena when describing their misery by using words like black, dark, shady, misty, sombre and gloomy, but most researchers and therapists saw this as metaphoric communication instead of a literal description of subjective experience. Also, in hindsight, in their gestures, postures and glances accompanying these words of darkness, clients indicated the mental spatial locations of these *zones of darkness*. However, as soon as clients were explicitly asked to point out these spatial contours to the therapist, they could do that swiftly and clearly.

A later analysis of therapy sessions supported the hypothesis that the *zones of darkness* were an epiphenomenon of repressing life-issues that were too hard to handle. However, since these often very difficult issues were blocked out of awareness due to their repression, clients did not mention them. Clients seemed to remain incognizant of these issues until they were *uncovered* (1876; Freud, 1914; Brown & Van der Hart, 1998; Singer, 1990). A logical consequence for NLP-trained therapists was to treat these *uncovered* issues with classical NLP-techniques. Therapeutic progress, in the sense of the client showing a positive change in mood, appeared to correlate with a reduction in the density and size of the zones of darkness. Which led to the conclusion that *zones of darkness* occurred when clients were depressed and did not know why, and that these zones faded after the hidden issues were resolved (Beenhakker & Manea, 2018).

The above clinical experiences could be replicated in workshops, demonstrations and exercises. Feedback from therapists who had applied the method in their private practice helped towards the standardization of a treatment protocol (Derks, 2016).

From the above, the symptoms of *depression with an unknown cause* could also be understood. The dark veils interfered with the view on the world, dampening its luminosity like a grey-filter. Repression is an activity of the frontal-cortical inhibitory system that is used for concentration and learning (Singer, 1990). When these faculties are exhausted, the affected motor system produces tiredness, tenseness and heaviness, and the overused inhibitory frontal system produces impaired concentration, sleep issues, a reduced short-term memory, bad mood and agitation (Bogousslavsky et al., 2000). Secondary symptoms, such as overeating, addiction and suicidal thoughts, result from the client trying to escape towards better feelings.

The variety in the shapes of the *zones of darkness* – their size, opacity and locations – was quite wide. Many clients metaphorize their *zones of darkness* into all manners of black and heavy analogies, like rocks, burdens, walls, clouds or animals like "black dogs".

Study design

The search for co-operation with other depression researchers at Dutch universities was frustrated by their consistent lack of interest. Henceforth, the Society for Mental Space Psychology (SOMSP) continued with its limited financial means, existing skills and other resources, including a network of well-trained psychotherapists with a private practice.

In the study that is discussed in this article, we tested the method *depression in awareness space* under as realistic conditions as possible. Which means that real practising therapists applied the method to their depressed clients and in their own offices.

A former pilot study (Beenhakker, 2016; Beenhakker & Manea, 2018) had shown that the experimental protocol needed to be simple (see appendix 1). Therapists who are in interaction with their clients are only able to devote a small portion of their attention to questionnaires and the like. And thus, the experimental protocol should only minimally interfere with the therapists' behaviour. As a result, the well-known Beck Depression Inventory (BDI) was given priority over the more reliable Hamilton Rating Scale for Depression (or PHQ-9), since the latter test needs active administrative involvement by the clinician, while the former test can be filled out by the client without help.

In this study, each therapist was planned to treat 4 clients. Two were to be treated immediately and the other two were put as controls on a waiting list for 30 days, but would receive the same treatment when the 30 days of waiting had been expired. The therapists assigned these clients in order of arrival to the two groups: number 1 and 3 were immediately treated and the numbers 2 and 4 came to wait for 30 days. The clients that were immediately treated returned after 30 days (with a window of ±2 days) for post-testing.

The immediate-treatment clients and the waiting-list control clients were all tested for their level of depression on entry. Then the waiting-list control clients had to return after 30 (±2) days, were tested again and then treated to return to be post tested 30 (±2) days later (and checked for adverse events). Thus, all clients in the study were treated for depression, one group immediately and was tested twice, the other group were treated after 30 days and were tested three times.

All pre- and post-testing consisted of a 10-point Likert semantic differential scale, on which the clients could express their actual level of depression. Moreover, all tests contained the Beck Depression Inventory (21 items Dutch BDI). During the treatment, the therapists collected other facts about the client, such as gender, age, duration of the complaints and steps in the therapeutic process in the form of keywords. The therapists also sketched the location and size of the areas of darkness on the step-by-step protocol before and after their interventions.

Table 1: The used pre-post-test design with the waiting-list control condition.

	10	BDI	Treatment	30 days	10	BDI	Treatment	30 days	10	BDI
Immediate Treatments N=27	X	X	yes	X	X	X				
Waiting list Controls N=20	X	X	no	X	X	X	yes	X	X	X

10 = ten-point scale/BDI = Beck Depression Inventory
Treatment = the intervention depression in awareness space.

Test results

The number of clients treated according to the research protocol was forty-seven, which was fifty-three clients short of the planned one hundred. This low number gave rise to study two. Still, the quantitative data were robust enough to draw conclusions.

The composition of both conditions

The group of forty-seven clients that were treated included thirty-four women and thirteen males, varying in age between sixteen and seventy-one years of age. The immediate-treatment group consisted of twenty-seven clients, eighteen female and nine male, ranging in age between eighteen and seventy-one years old. The duration of the depressive complaints varied from four months up to thirty-five years. The waiting list control group consisted of twenty persons with sixteen female and four male clients ranging in age between nineteen and sixty-eight years. The duration of the depressive complaints varied from two months to forty years.

Table 2: age of clients per condition

	Treatment: N=27	Waiting: N=20
16/24	3	2
25/34	5	5
35/44	5	6

45/54	5	4
55/64	6	2
65+	3	1

Table 3: Duration of the depressive complaints

	Treatment N=24	Waiting N=19
< 1 year	9	5
1< 2 years	3	2
2< 3 years	5	2
3< 4 years	1	3
> 5 years	6	7

The immediate-treatment group had one case of incomplete data (dropout) and the control group had two of cases of dropout.

Inclusion and exclusion criteria

As a condition for including clients in the study, the therapists checked if the clients were receiving no other parallel treatment for depression. Another condition was whether or not the BDI-scores were too low or too high (below 10 and above 30). The aim was to allow for people in this study with only moderate depression, but for ethical and practical reasons all clients were taken into treatment. The therapists were not allowed to look at filled out scales before the treatment, something the researchers admitted, was hard to control.

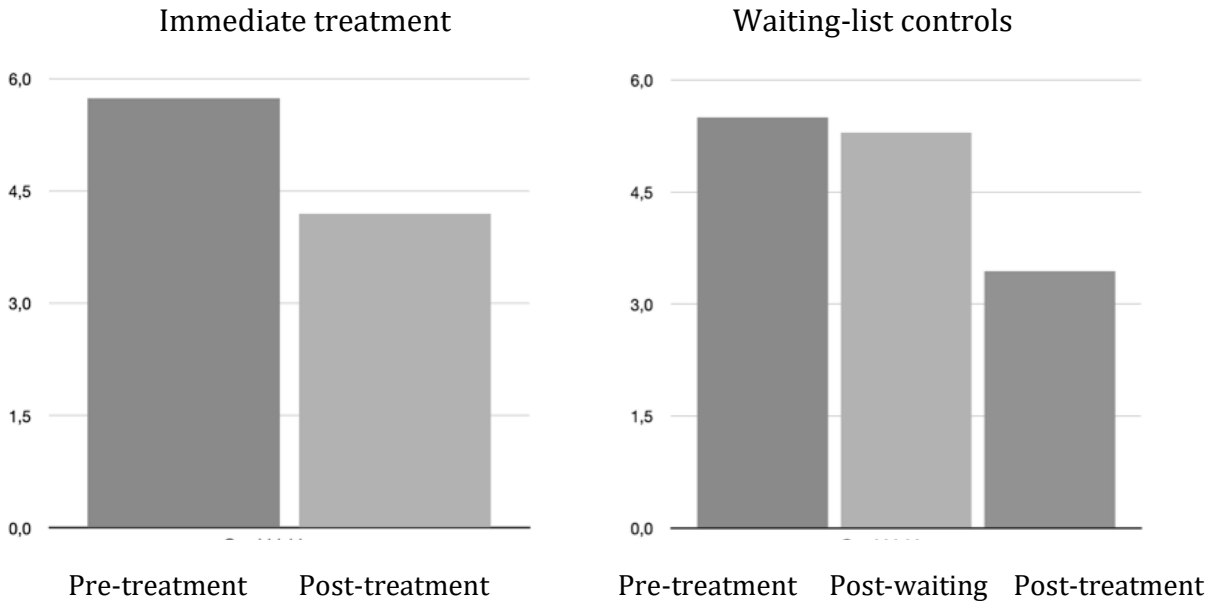
The ten point-scale measures in the treatment group

A ten-point semantic differential Likert scale gives a subjective rating of the symptoms. For the immediate-treatment group (*N*=27) the mean pre-treatment score for the level of depression was **5.74** (standard deviation *sd* 1.868 and standard error *se* .359) compared to a mean post-treatment level after thirty days of **4.20** (*sd* 2.030 and *se* .391). The individual scores showed a positive paired sample correlation of .628. A dependent samples *t*-test showed a $t = 4.735$, $p < 0{,}00005$ at a confidence level of 95%. The conclusion drawn here is that there was a **significant relief in symptoms** after thirty days of treatment.

The ten point-scale measures waiting list group

For the waiting-list group (*n*=20) the mean pre-treatment score for the level of depression was **5.50** (*sd* 2.194 and *se* .491) compared to a mean post-waiting level after thirty days of **5.30** (*sd* 2.029 and *se* .454). The individual score showed a positive paired sample correlation of .833. A dependent samples *t*-test showed a $t = 0.728$, $p < 0.05$ at a confidence level of 95%. The conclusion is that there was **no significant relief in symptoms** after waiting for thirty days.

Figure 1: Mean scores on the 10-point scale.



The BDI-measure-treatment group

The standard interpretation of the level of depression on the BDI is as follows: no or minimally depressed (score: 0-9), marginally depressed (score: 10-14), lightly depressed (score: 15-20), moderately depressed (score: 21-30) and severely depressed (score: 31-40).

For the immediate treatment group (*N*=27) the mean pre-treatment BDI-score for the level of depression was **21.96** (*sd* 8.716 and *se* 1.677) compared to a mean post-treatment level after thirty days of **15.04** (*sd* 10.204 and *se* 1.964). The individual score showed a positive paired sample correlation of .791. A dependent samples *t*-test showed a *t*=5.735, $p < 0.000005$ at a confidence level of 95%. The conclusion drawn here is that there was a **significant relief in symptoms** after the thirty days treatment.

The BDI-measure-waiting-list group

For the waiting list group (*n*=20) the mean pre-treatment score for the level of depression was **22.15** (*sd* 8.331 and *se* 1.863) compared to a mean post waiting level after thirty days of **18.95** (*sd* 8.703 and *se* 1.946). The individual score showed a positive paired sample correlation of .812. A dependent samples *t*-test showed a $t = 2.732$, $p < 0,05$ at a confidence level of 95%. The conclusion is that there was a **significant relief in symptoms** after the waiting for thirty days. Also, there was a **placebo effect** observed (spontaneous remission).

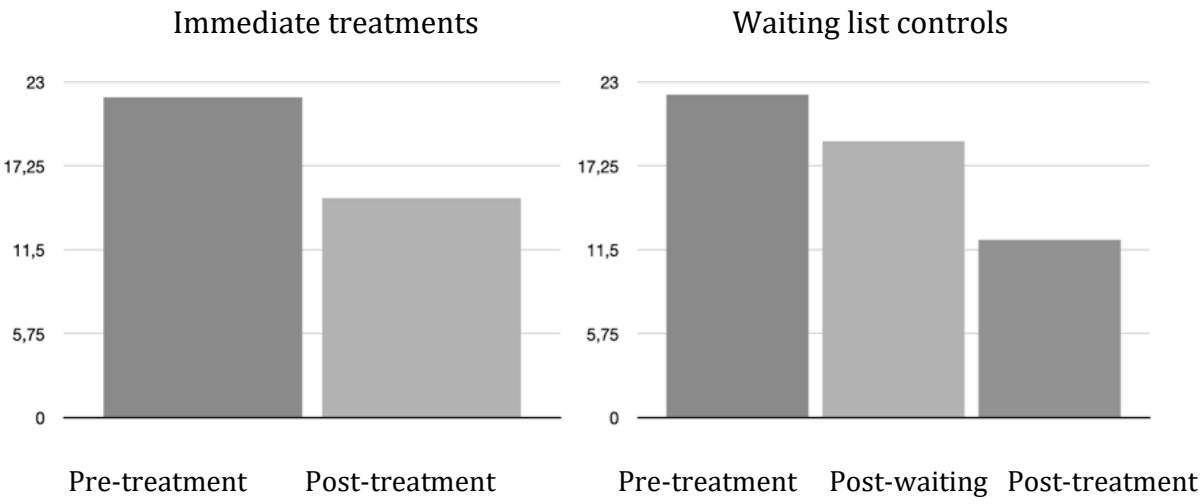
The ten-point-scale-measure 2nd and 3rd waiting-list group

For the waiting list group (*N*=18: 2 dropped out) the mean post-waiting score for the level of depression (2nd test) was **5.00** (*sd* 2.390 and *se* .845) compared to a mean post-treatment level after thirty days (3rd test) of **3.44** (*sd* 2.259 and *se* .799). The scores showed a positive paired sample correlation of .291. A dependent samples *t*-test showed a $t = 1.563$, $p < 0,05$ at a confidence level of 95%. The conclusion drawn was that there was a **significant relief in symptoms** after the treatment after thirty days.

The-BDI-measure 2nd and 3rd waiting-list group

For the waiting list group (*n*=18: 2 dropped out) the mean score after thirty days of waiting list for the level of depression was **18.78** (*sd* 9.143 and *se* 2.155) compared to a mean post treatment level after thirty days of **12.17** (*sd* 9.147 and *se* 2.156). A dependent samples *t*-test showed a $t = 3.313$, $p < 0{,}05$ at a confidence level of 95%. The conclusion is that there was **a significant relief in symptoms**.

Figure 2: Mean scores on the BDI.



Conclusions from study one

In the previous pilot study mentioned above (Beenhakker 2016), with five clients and five control clients, four out of five clients that were treated showed significant improvements. In that study, one highly skilled therapist treated all five clients. Therefore, the researchers in the present study were curious if other therapists could produce similar results, which was considered a precondition for a widespread promotion of the method. Although the results did not match up to the standard of the one-therapist pilot study, the data show a significant therapeutic effect that clearly is above spontaneous remission. This provides enough reason to strive for an improved training program.

One of the main conclusions from this study is, that "zones of darkness" are an epiphenomenon of a specific kind of depression, namely depression with an unknown cause, where the client cannot tell why they are depressed. Understanding the psychological mechanism behind depression with an unknown cause is one of the most valuable results from this study. The differential diagnosis between other types of depression and the very prevalent depression with an unknown cause is paramount in coming to a new study design that is going to continue this line of research, in which only clients with the latter type of depression should be included. Also, we need to emphasize that in this study the focus is entirely on a single session treatment. One must

conclude on the basis of this study that it is very probable that the treatment used here for depressions that include dark phenomena in mental space, can provide much relief in one session. Diagnosing the right clients for this and increasing the clinical skills of therapists may start a new chapter in the treatment of something considered so troublesome as depression.

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