On the effectiveness of psychotherapy in personality disorders

Bartak, A.

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Chapter 7

General discussion
This thesis aims to contribute to the understanding of psychotherapy for PDs and to refine the toolkit for psychotherapists working with this patient group. We show the value of more intensive forms of psychotherapy for different kinds of PD patients. The strongest evidence concerns the benefits of short-term inpatient psychotherapy for patients with cluster C PDs. Our results contribute to the growing evidence base of psychotherapy for PDs, extending it by cluster-specific treatment recommendations. Furthermore, we provide the psychotherapy researcher with a powerful tool to counter selection bias in non-randomised studies.

The main aims of this thesis are to

1. Explore what we know about psychotherapy for patients with PDs, and what we still need to know.
2. Investigate the effectiveness of different dosages of psychotherapy for different groups of PD patients.
3. Examine a method for comparing the effectiveness of widely differing treatments without randomising patients.

In this final chapter, I first provide a summary of the main findings. Then I discuss the strengths and limitations of the present studies as well as the implications of the findings for future research and practice.

Summary of main findings

Chapter 2 describes the existing research base of psychotherapy for PDs in terms of effectiveness and cost-effectiveness studies. The effectiveness of psychotherapy for patients with PD is well documented but does not yet fully live up to the modern standards of evidence-based medicine. One of our criticisms is that existing research does not cover all PDs and is often limited to experimental studies with low external validity. Furthermore, costs and effects are mostly studied apart, making integration of these key aspects difficult. We make a plea for more integrated research, as well as for high-quality effectiveness studies covering the broad range of PDs. We emphasise the need for studying dose-effect relations in psychotherapy for PDs.
Chapter 3 raises the matter of selection bias in psychotherapy research and offers a solution to this problem. When studying widely differing treatments, researchers face the ethical limits of randomisation. However, in non-randomised studies researchers are confronted with the problem of selection bias. We describe the propensity score method, a sophisticated statistical tool used to adjust for selection bias in quasi-experimental studies. This method enables researchers to compare the results of different treatments in non-randomised studies. We tested the usefulness and applicability of this method for psychotherapy studies and found that—when randomisation is impossible—quasi-experimental designs using the propensity score method are a feasible alternative. Keeping several precautions in mind, the propensity score method is a promising tool not only for our studies but also for future psychotherapy research in general. The chapter provides a step-by-step protocol for the application of the propensity score method for comparing two treatment arms. In an additional publication, we also extended this method to more than two groups (Spreeuwenberg et al., 2010).

The three result chapters (chapters 4 to 6) describe the results of the large multi-centre study SCEPTRE conducted in regular clinical practice, according to the recommendations from chapter 2. SCEPTRE is an integrated (cost-)effectiveness study covering the whole range of PDs. Outcome was measured in terms of psychiatric symptoms, social and interpersonal functioning, and quality of life. All results were corrected for the influence of selection bias with the propensity score method described in chapter 3.

Chapter 4 presents the results on patients with cluster C PDs (N = 371), the biggest cluster of the SCEPTRE sample. We compared five different treatment modalities:

- long (more than six months) outpatient treatment
- short (up to six months) day hospital treatment
- long day hospital treatment
- short inpatient treatment
- long inpatient treatment.

Results were reported at 12 months after baseline. Patients in all treatment groups improved significantly on all outcome measures. Short inpatient treatment showed significantly more improvement than most other treatment modalities on all outcome measures. It is argued that short-term inpatient treatment seems to be specifically beneficial for this group of cluster C PD patients.
Chapter 5 compares three treatment settings—outpatient, day hospital, and inpatient treatment—for the group of cluster B PD patients \( N = 207 \) at 18 months after baseline. Patients in all treatment groups improved significantly on all outcome measures. Furthermore, we found a marginally significant difference between inpatient and outpatient treatment. Patients in inpatient treatment improved more than patients in outpatient treatment regarding psychiatric symptoms. Our conclusion is that inpatient treatment is a valuable treatment for patients with cluster B PDs and should be taken seriously as a treatment option both in research and clinical practice.

Chapter 6 reports on the comparison of three treatment settings—outpatient, day hospital, and inpatient treatment—for the smallest patient group of our sample: cluster A PD patients \( N = 57 \). In the comparison of the three treatment settings in terms of psychiatric symptoms, patients in day hospital and inpatient treatments showed the largest improvements. When applying the propensity score method to this study sample, it appeared that patients in the three treatment groups were not readily comparable. Therefore, the differences found in favour of inpatient and day hospital treatment have to be interpreted carefully, and replication of the results (in larger patient samples) is needed. Nevertheless, it is an important conclusion that positive change is possible in this highly impaired patient group. Cluster A pathology does not seem to impede profiting from psychotherapeutic treatment.

Strengths and limitations

The results of the present thesis have a strong external validity. SCEPTRE was conducted in a large sample of PD patients followed in regular clinical practice. Therapists were doing their regular work, without special training or supervision. Exclusion criteria were minimal, meaning that the present results are on real-world patients seen in real-world mental health care. Follow-up response was high, supporting our findings in two ways: First, a high follow-up response implies that findings are applicable to a large group of patients; second, the commitment shown by the participants reflects the value psychotherapy seems to have for them: Even though patients with PDs do not represent an “easy” patient population, they had the discipline to return questionnaires faithfully, even well after they had left treatment.

In the absence of a randomisation procedure, strong statistical control was provided by the propensity score method. Given the ethical constraints when comparing treatments differing widely in terms of dosage, using a quasi-experimental design
can be considered the best alternative. In that respect, I hope to have inspired
the conductors of future psychotherapy research by offering a method to study
treatment effects in a less invasive way, compared to the traditional randomisation
design. For the future, I recommend conducting both randomised trials and quasi-
experimental studies, each for their own purpose: one measuring efficacy and the
other effectiveness in clinical practice.

The present thesis also has its limitations. First, treatment institutes differed in
measurement schemes because of existing research projects. Differing assessment
points hampered straightforward statistical comparisons. We tackled this problem
by implementing multi-level statistical modelling in our calculations. This method
can handle longitudinal data with observations unequally spaced in time.

Second, the effect of possible psychotropic medication was not reported. Our aim
was to measure the effectiveness of psychotherapy, so we focused on the amount
of therapy patients received. We did collect patient data on medication use before,
during, and after psychotherapeutic treatment but, given the differing measurement
schemes mentioned above, it was difficult to disentangle the effects of medication
and psychotherapy. Similarly, scientific literature does emphasise that psychotherapy
should always be the first treatment option to treat PD as a whole (e.g., National
Institute for Health and Clinical Excellence, 2009) and recommends pharmacotherapy
only for specific symptoms (Herpertz et al., 2007; Lieb, Vollm, Rucker, Timmer, &
Stoffers, 2010) and/or crisis management (Livesley, 2005). Nevertheless, possible
effects of the combination of pharmacotherapy and psychotherapy should gain
more attention in future (randomised) research (Bond & Perry, 2006).

Third, there was no standardised measurement of Axis I disorders, even though it is
well known that PDs are significantly comorbid with a wide range of Axis I disorders
(Lenzenweger, Lane, Loranger, & Kessler, 2007). While we used self-report measures
of psychiatric symptoms, such as the BSI (de Beurs & Zitman, 2006; Derogatis &
Melisaratos, 1983), the use of standardised Axis I diagnoses would have helped to
investigate the influence of Axis I disorders on the outcome of patients with PD. The
reason for this omission was the purely practical one of not burdening patients with
too many assessment instruments. The baseline assessment booklet was already
large and patients found the thorough Axis II interview often tiresome. In retrospect,
I would still choose to assess Axis I disorders with a standardised instrument, and
strongly recommend this for future research on PDs.
Fourth, PDs were assessed only before the start of treatment. To determine the percentage of patients who fell under the threshold of their (former) PD(s) after treatment, it would be helpful to have a second semi-structured interview at a follow-up point. This is certainly a suggestion for longer-term follow-up of the present patient sample, perhaps five or ten years after baseline.

Fifth, the influence of theoretical school is not taken into account in our studies. In the participating institutions the two aspects of dosage and theoretical school were interrelated as on occasion a particular dosage was administered only within one theoretical frame, making it impossible to study these two variables apart. To disentangle the effects of dosage and theoretical orientation, a different research design is necessary. Previous research has shown that different schools hardly differ in effectiveness. However, a 2 x 2 research design varying both dosage and theoretical school would yield definitive answers to the question of differential effects of these two parameters.

Sixth, there was no control for the influence of possible care consumption after the intended treatment. As we did collect patient information on care consumption after leaving the index treatment, the effects of this additional care consumption can still be determined in future manuscripts. It is therefore something I would like to recommend for future research with SCEPTRE data.

Change

Notwithstanding the limitations of our research, one of the main findings of this thesis is that during psychotherapy change takes place across all three clusters of PDs, especially in the outcome area of psychiatric symptoms. But when we talk about change and changeability of personality and PDs, what kind of change do we expect? This is not always clear. To further refine the toolkit for healthcare professionals, we still need to know (a) what kind of changes can be achieved in psychotherapy for PDs, (b) how long these changes will take, and (c) how these changes are achieved.

We know that during psychotherapy psychiatric symptoms improve, and with them often quality of life and psychosocial functioning. What we don’t know from our study is if this change is accompanied, preceded or followed by a deeper personality change. Within SCEPTRE we measured personality functioning with a new instrument, the Severity Indices of Personality Problems (SIPP; Verheul et al.,
So far, only preliminary results of this measure are available. Nevertheless, these first findings suggest that in a small subsample of the SCEPTRÉ patients, personality traits change from less adaptive to more adaptive during treatment (Verheul, et al., 2008). Further results are awaited. In their long-term follow-up of patients treated with day hospital based MBT, Bateman and Fonagy (2008) concluded that patients improved largely in the core borderline PD symptom of suicidality, as well as in diagnostic status. Other recent studies taking personality variables into account are the studies by Vinnars (2009) and Vermote (2009). All three studies found positive change in variables related to personality pathology, but patients still showed manifest impairment in certain areas of life. Taken together, we can conclude that during psychotherapy change takes place with a prominent position for symptomatic change. Less is known about the change of underlying personality traits and it is debatable if deeper personality change is a realistic goal in psychotherapy (Ferguson, 2010). Perhaps it is much more promising to strive for “dealing with life” (given certain personality characteristics) and to help the patient achieve greater adaptive skills and—essentially—higher satisfaction in life. Further research focusing on the interplay between symptomatic, functional, and deeper structural change is clearly needed to answer this question.

We know that during psychotherapy some form of positive change takes place. What we don’t know from our results is the sequence of changes that eventually lead to recovery. A pioneering naturalistic study on the sequence of recovery in an outpatient sample with depression, anxiety, and/or PDs was conducted by Perry and Bond (2009). The authors demonstrated that different outcome variables showed different patterns of change: They observed the earliest recovery in self-destructive symptoms (one of the core symptoms of borderline PD), the ability to work, self-reported symptoms of distress, and defensive functioning. Satisfaction and observer-rated measures of symptoms and functioning took longer to show recovery. Overall, improvement was common, while true recovery proved to be a much more difficult and slower-paced process—there is no such thing as a quick fix for personality pathology (see Figure 7.1). Complaints with high proportions of recovery took between 4.1 to 6.1 years to recover, while global measures of symptoms, (Axis I) disorders, and functioning were projected to take two to three times longer. These results are consistent with the view of Clark (2007, 2009), who concluded that treatment should first focus on more acute and changeable PD manifestations (e.g., self-harm and suicidality). Subsequently, it should address more stable long-standing maladaptive PD traits that cause problems in interpersonal functioning (e.g., the preference for solitary activities). Regarding the changeability of personality and
PDs, researchers have come to the conclusion that PDs can be regarded as consisting of two different aspects: more stable trait dimensions and less stable symptomatic behaviours (Clark, 2007). The revision of Axis II in DSM-5 should and most certainly will take these findings into account (Krueger, Skodol, Livesley, Shrout, & Huang, 2007; McGlashan et al., 2005). Overall, future research should concentrate on longer-term follow-ups and more in-depth process studies, especially regarding stages of change. Then we will hopefully be able to better determine which therapy dosages are needed to produce distinctive changes in personality functioning.

Figure 7.1. Source http://www.bpd solved.com

Having said this, there remains the question how change can be achieved (Lundh, 2009). In order to shed light on this issue the black box of psychotherapy must be opened. Different forms of specialistic psychotherapy yield similar amounts of change, as previously mentioned. Therefore, it is assumed that their effect is rooted in certain common factors underlying the mechanisms of change (Ahn & Wampold, 2001; Lambert & Ogles, 2004). Still, there might be specific gains attributable to certain therapy techniques yet undiscovered. Recently, one well-designed dismantling study has investigated the merit of transference interpretations in psychotherapy (Høglend et al., 2008). More studies of this kind should be done to explore further possible effective ingredients of psychotherapy.
Costs of change

What we know more about, though, is what change costs. Present results show the effectiveness of time- and cost-intensive treatments such as inpatient and day hospital psychotherapy. The favourable results for the effectiveness of short-term inpatient treatment for cluster C PD patients are supported by cost-effectiveness data (Soeteman et al., in press) from the same patient sample. However, cost-effectiveness data in cluster B PD patients shows that the effective intensive treatments are less cost-effective (Soeteman et al., 2010). It is, however, possible that for certain subgroups of patients who do not profit enough from low-intensive treatments these treatments are necessary, effective, and – possibly – also cost-effective in the long run (due to less care consumption in the future). More long-term research is needed to tailor therapies more specifically to certain patient groups (i.e., matching) in terms of effectiveness and cost-effectiveness.

Implementation of research results in public health

One of the greatest challenges facing today’s mental healthcare is to establish a research culture within clinical practice, and similarly for contemporary research to serve and inspire clinical practice, thereby improving it in a meaningful way. Delivering evidence-based and high-quality healthcare is not only in the best interest of the patients. The pressure to present evidence on (cost-)effectiveness is getting higher (Bartak, Soeteman, Verheul, & Busschbach, 2007). In times of restricted health budgets, health insurances and other third-party providers force psychotherapists to know and to show how the money is spent. Instead of justifying the status quo, mental health practitioners should be open to new findings and should work together with researchers to implement (more) effective treatment programmes in order to let more patients benefit from evidence-based mental health care (Chiesa & Healy, 2009).

So how could the present research serve and inspire clinical practice?

Once scientifically established, effective treatments have to be implemented on a large scale in clinical practice. In our case, this would imply the broad implementation of structured short-term inpatient services for patients with cluster C PDs, as we have shown this form of treatment to be both highly effective and cost-effective. Furthermore, implementation of new treatment programmes should always be
accompanied by outcome-monitoring to make early evaluation possible and to adjust treatment in the case of threatening treatment failure. However, before we make far-reaching recommendations to clinical practice, we can begin much slower. I predict that the present study will contribute to clinical practice first and foremost in the longer term by introducing the important concept of dosage to make healthcare more tailored to (subgroups of) PD patients. If the concept of dosage becomes a natural part of psychotherapy research and is included in future studies, finally leading to refined and more specific practice guidelines, it will be—at least partly—a merit of this study. In short: dosage matters.