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RUNNING HEAD: Two Year Assessment of Psychotherapy for Personality Disorders

Psychotherapy for Personality Disorders in a Natural Setting: a Pilot Study over Two Years of Treatment

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Abstract

Long-term assessment of the effects of psychotherapy for personality disorders (PDs) in a natural environment is an important task. Such research contributes to enlarge the practice-based evidence, embedded in broad collaborations between clinicians and researchers in psychotherapy for PDs. The present pilot study used rigorous assessment procedures and incorporated feed-back loops of outcome information to the therapists in demonstrating the effects of psychotherapy for PD in a natural setting. The number of DSM-IV criteria for any PD was the primary outcome (along with psychological distress, depression, impulsiveness and quality of life as secondary measures), assessed at intake, 6, 12, 18 and 24 months of psychotherapy for $N = 13$ patients with PD. Data were analyzed using Hierarchical Linear Modeling. Results demonstrated a large pre-post effect ($d = 2.22$) for the observer-rated measure (primary outcome), and small to medium effects for the secondary outcomes; these results were corroborated by a steady decrease of symptoms over all 5 time-points, which was significant for several outcomes. These results add a piece to the literature by demonstrating the effects of long-term psychotherapy for PDs in increasingly diverse contexts and suggest that practice-oriented research can be carried out in a collaborative and systematic manner.

Key-Words: Naturalistic Trial; Psychotherapy; Outcome; Personality Disorders; Hierarchical Linear Modeling

PSYCHOTHERAPY FOR PERSONALITY DISORDERS IN A NATURAL SETTING: A PILOT STUDY OVER TWO YEARS OF TREATMENT

Introduction

Psychotherapy for personality disorders (PDs) has been demonstrated to be effective, with equivalent effects for all *bona fide* therapy models (APA; 2001; Budge, Moore, Del Re, Wampold, Baardseth, & Nienhaus, 2013; Gaebel & Falkai, 2009; Perry, Banon, & Ianni, 1999). Although individual studies have attempted to establish superiority of one treatment over another, it has been argued that an important and particularly productive next step in psychotherapy research for PDs would be the accurate dissemination of treatments in natural settings (Budge et al., 2013). Scientific evidence gained in natural settings is fundamentally rooted in everyday clinical practice; therefore such naturalistic research contributes to closing the widening gap between research and clinical practice (Barkham & Margison, 2007; Castonguay, Barkham, Lutz, & McAleavey, 2013; Stiles, Barkham, Connell, & Mellor-Clark, 2008). Naturalistic studies optimally address problems related with generalizability of results from randomized controlled trials (Persons & Silberschatz, 1998). Despite accumulating outcome research based on randomized methodology, clinicians tend to ignore results from psychotherapy research, because of its low direct practical implications and of the great complexity of its methodology (Castonguay et al., 2013; Persons & Silberschatz, 1998).

Castonguay, Youn, Xiao, Muran and Barber (2015) summarized assets of psychotherapy research in natural settings and concluded that such research should (1) optimize clinical relevance paired with scientific rigor in the assessments (i.e., by including multiple observer assessments of pre- and post-treatment of clinically meaningful outcomes), (2) address therapist's concerns by adopting a fundamentally transparent research strategy (i.e., by explicitly

stating the non-use of the data for finance control or by providing feed-back to the therapists), (3) increase partnership between clinicians and researchers (i.e., by fostering collaboration and taking into account each party's needs). According to the authors, the consideration of the afore-mentioned may contribute to benefits on the levels of the patient's outcome, of the process of how therapy is conducted, and of the development of professional identities, in addition to gains in the general organization of the health system. Finally, such practice-based evidence gathered in different contexts helps constructing the broadest possible knowledge base on the effects of psychotherapy (Barkham & Margison, 2007).

Such research is particularly necessary in the domain of treatments for PDs. Until recently, clinicians tended to find treatments for patients with PDs highly unrewarding and fundamentally "difficult" (Lewis & Appleby, 1988; Paris, 2007). It is an added-value to focus such research on the personality disorders (PDs), because it may contribute to specific research questions on productive processes which possibly cut across different treatment modalities for PDs. Such emerging questions might be the focus of larger trials. Therefore, there is a need for more rigorous practice-oriented research on PDs, conducted within increasingly diverse contexts and aiming at demonstrating the effects of different modalities of psychotherapy.

The present pilot study aims at contributing to this overall research question. It seeks to demonstrate the effectiveness of a small sample of psychotherapies for patients with PDs within a naturalistic hospital-based setting, over the course of 24 months. Effectiveness in this context will be operationalized by using the reduction in number of PD criteria met (i.e., the sum of all PD criteria met across categories; see Dimaggio, Carcione, Nicolo, Lysaker, d'Angerio, Conti et al., 2009).

Method

Participants

In total, *N* = 13 patients participated in the study. Out of these, *n* = 6 (46%) were female, with a mean age of 35.85 years (SD = 10.70; range between 20 and 56). They presented mainly with Borderline Personality Disorder according to APA (1994; *n* = 11); *n* = 2 patients presented also with Paranoid Personality Disorder (PD) and *n* = 1 patient with Obsessive-Compulsive PD (multiple diagnoses on axis II for DSM-IV were possible). In addition, patients presented with depression (*n* = 10), anxiety disorders (*n* = 2) and substance abuse (*n* = 2). The PD diagnoses were established using the Structured Clinical Interview for DSM-IV Disorders – Axis II (SCID-II; First, Spitzer, Williams, & Gibbons, 1994) by a trained clinician-researcher. Reliability was established for 30% of the diagnoses (4) and was acceptable ($\kappa = .85$). Axis I diagnoses were established using the Mini International Neuropsychiatric Interview (Lecrubier, Sheehan, Weiller, Amorim, Bonora, Harnett Sheehan, Janavs, & Dunbar, 1997). Inclusion criteria were the presence of a PD and an indication for psychotherapy. No specific exclusion criteria were formulated. All participants gave written informed consent for their data be used for research; the present protocol was accepted by the Ethics Committee of the Psychiatry Department involved (identifier 82/11).

In total, *N* = 10 psychotherapists (*n* = 5 psychiatrists and *n* = 5 psychologists) participated in the study. Among these, *n* = 5 were female, and *n* = 6 were still in formal training for becoming a psychotherapist according to Federal Law (however, all trainees were at an advanced level of psychotherapy training). As for the approaches, *n* = 5 used a psychodynamically-informed and *n* = 5 a cognitive-behaviorally-informed psychotherapy model. Three therapists treated two patients, 7 had one patient each.

Treatments

Treatments took place in a European French-speaking University hospital environment (except for one treatment which took place in private practice). The psychotherapies were held once or twice a week. They lasted a variable number of sessions per common decision taken by the patient and the therapist, according to the good-enough conception of psychotherapy change (Kramer, Berthoud, Koch, Michaud, Guex, & Despland, 2013; Stiles, Barkham, Connell & Mellor-Clark, 2008). All treatments lasted at least two years, $n = 5$ treatments went on after 2 years of treatment. Given the naturalistic context, the therapists used psychotherapy practice as usual, without following a particular manual. The patients did not have to pay for treatment, according to Federal Law.

Instruments

Structured Clinical Interview for DSM-IV Disorders – Axis II (SCID-II; First et al., 1994) is a semi-directive assessment interview for the diagnoses of Personality Disorders, based on the results of the corresponding screening questionnaire. It was administered by a trained clinician-researcher and was used to assess the detailed axis II diagnosis according to DSM-IV. The number of criteria met was defined *a priori* as main outcome of the study.

Outcome Questionnaire-45 (Lambert, Burlingame, Umphress, Hansen, Vermeersch, Clouse & Yanchar, 1996). This self-report questionnaire assesses effects of psychotherapy using 45 items. A general score of psychological distress is computed; there are three sub-scales measuring symptoms, interpersonal relationships and social role. A total score of over 60 is considered symptomatic. Cronbach alpha for the present sample was. 89.

Beck Depression Inventory-II (BDI-II; Beck, Rush, Shaw, & Emery, 1979). This is a self-report questionnaire assessing depressive symptoms in the past week, by using 21 items. Symptom intensity is measured on a Likert-type scale ranging between 0 and 3. A total score is

computed which may be categorized in mild (10-18), moderate (19-29), severe (over 30) depression. Cronbach alpha for the present sample was. 91.

Barratt Impulsiveness Scale (Patton, Stanford, & Barratt, 1995). This self-report questionnaire measures impulsivity by using 30 items. These items are coded on a Likert-type scale. A general score is computed and three sub-scales measure attentional, motor and non-planned impulsivity. Cronbach alpha for the present sample was .83.

EuroQoL (The EuroQol Group, 1990). This 1-item questionnaire is a thermometer assessing the quality of life on a scale ranging from 1 (minimum quality of life) to 100 (maximum quality of life).

Procedures and statistical analyses

All patients were recruited at an outpatient clinic specialized for PDs. At intake, the patient met with the researcher for inclusion, who proposed to participate in the study. An independent clinician-researcher, who was not a therapist in the present study, assessed all patients at intake, and then after six, 12, 18 and 24 months. All assessments were video-taped. Patients were given a financial compensation for each assessment (the equivalent of USD 30). The results of each assessment were sent to the therapist in the form of a summarized text within 2 weeks.

For the longitudinal data over five time points (intake, 6, 12, 18 and 24 months), a base model in Hierarchical Linear Modeling (HLM; Bryk & Raudenbush, 1987) was used. On level 1 are the assessment points (time), on level 2 the patients. Due to the small power, it was not possible to take into account the nesting on the level of the therapists (level 3).

Results

Data was available for 55 datapoints (number of missings: 10; 15%).

On the a priori defined main outcome – the number of criteria met for PDs –, the patients had a mean of 10.43 (SD = 3.32, range from 6 to 17) at intake and a mean of 4.60 (1.67, range from 3 to 7) at discharge which corresponds to a pre-post effect size of d = 2.22. Slope over all five time points as modeled by HLM was significant (Figure 1).

For the secondary outcomes, all self-reported, the picture is more differentiated. Mean level of psychological distress at intake, as measured by the OQ-45, was 84.17 (SD = 31.43) and at discharge 81.12 (SD = 25.33); this corresponds to a pre-post effect size of d = 0.11. The corresponding slope over all five time points is not significant. This holds true for the total score of OQ-45, and for the two sub-scales symptom distress and interpersonal problems. However, we found a significant decrease over the five time points (see Table 1) for the social role sub-scale, with a moderate pre-post effect size of d = 0.59. The mean level of depression at intake was 31.00 (SD = 13.26), which is in the severe range. After 24 months of treatment, the mean level of depression was 22.60 (18.60), which is in the moderate level of depression, with a pre-post effect size of d = 0.52. This moderate effect corresponds to a significant slope over all five time points (see Table 1). The mean level of impulsiveness was 72.00 (SD = 13.83) at intake and 59.80 (9.34) after 24 months, with a pre-post effect size of d = 1.03. Despite the large pre-post effect size, this change is not significant when modeling change over all five time points using HLM (see Table 1). Finally, mean level of quality of life was 41.70 (SD = 21.83) at intake, 52.00 (21.68) after 24 months, which corresponds to a small pre-post effect size of d = 0.47. The results from the HLM revealed a highly significant change in the slope, when taking all five time points (see Table 1) into account.

Discussion

Long-term assessment of the effects of psychotherapy for personality disorders in natural settings is an important task. It helps demonstrate, corroborate and differentiate outcome effects for *bona fide* psychotherapies and help develop hypotheses about involved processes. In addition, such action research allows for fruitful collaborations between clinicians and researchers. The present study used a small sample of patients with high symptom load, both on the level of personality pathology and co-morbid disorders, which makes this sample representative of patients in public psychiatric services across contexts.

The main effect found in the present study shows that psychotherapy has demonstrable effects on the level of observer-rated core symptoms of personality disorders (PDs; APA, 2001). In keeping with Dimaggio et al.'s (2009) recommendations and in order to allow for the broadest description of the actual level of limitations, we used the number of symptoms over all PD categories, rather than a specific category. We found a steady decrease over all five time points and a large pre-post effect for PD symptoms, thus confirming the relevance of reliable observer-rated assessments.

Secondary outcomes showed a more complex pattern: pre-post effects ranged between small (psychological distress) and large (impulsiveness). Most importantly, problems in co-morbid depression and in social role decreased over the course of the 24 months of treatment (with moderate pre-post effects). Such changes are important components of the long-term adaptation and the progressive social identity integration of patients with PD undergoing therapy (Gunderson, Stout, McGlashan, Shea, Morey, Grilo et al., 2011). We also found a steady increase of patient's quality of life (with a small pre-post effect). This constant increase may demonstrate the potential resourcefulness of psychotherapy for patients with severe PDs. The process of identity integration may be particularly central for therapeutic change from a long-

term perspective; in the present study, we did not assess this process. We would recommend this process be tested in further studies.

General distress, subjectively rated by the patient, only presents small effects which might add a piece to the discussion on observed unchanged – or fluctuating – global functioning, despite lessening of levels of specific symptom areas associated with PDs (Gunderson, Bender, Sanislow, Yen, Bame Rettew, Dolan-Sewell, Dyck, Morey, McGlashan, Shea, & Skodol, 2003). As the treatment progresses, patients may report in a self-defeating way that "therapy is not working" and continue reporting high levels of distress, which might contribute to the therapist feeling of an exhausting and "difficult" treatment (Lewis & Appleby, 1988, Paris, 2007), whereas in reality, there are real changes observable across time. The therapist and the patient might not see them because of their immersion in the treatment. As such, the present pilot study is a piece of research demonstrating that regular psychotherapy – conducted without systematic adherence checks and within several theoretical orientations – works for PDs. Our results may also indicate to therapists to be patient and accept modest or partial gains in the treatment.

The present study demonstrates that practice-oriented research may be scientifically rigorous and, as such, may contribute to enlarge practice-based evidence (Barkham & Margison, 2007; Castonguay et al., 2015). We may speculate that the incorporated feed-back given to the therapists within two weeks after each assessment, helped them to accept the research assessments and find them clinically meaningful (Castonguay et al., 2013). Our study attests the feasibility of systematic observer-based assessments of outcome in a natural setting; their adjunction with self-reported assessments was particularly fruitful. Further studies in naturalistic contexts should also include the assessment of socio-professional functioning and identity integration processes over the course of long-term psychotherapy; these variables are often

neglected in therapy studies for PDs, while they seems central, at least for patients with borderline personality disorder (Gunderson et al., 2011). Further studies should assess different evidence-based psychotherapy forms for PDs, as practiced in natural environments. A given therapy approach corresponding formally to "best practice" (APA, 2001; Gaebel & Falkai, 2009) may only be useful for patients in a given environment, if its actual clinical utility is demonstrated in naturalistic studies. In order to do this, it may be central to assess therapist adherence to the therapy model used, both as a quality assurance of the implementation process and as a potential predictor of symptom change.

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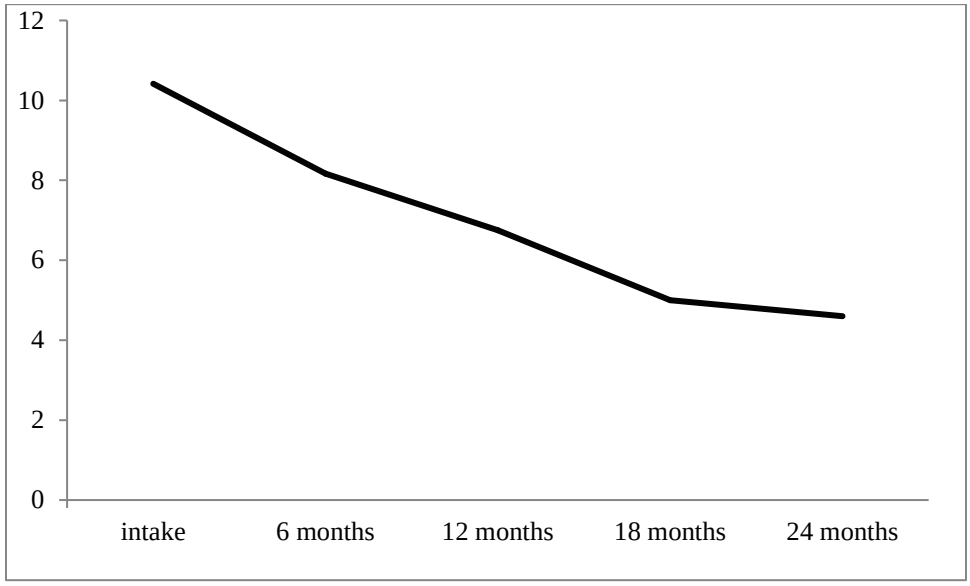
Table 1. Outcome of psychotherapy for Personality Disorders over two years (*N* = 13)

Measure	Coefficient	SE	*t*-ratio	*p*-value
OQ-45: Total	-0.40	0.38	-1.04	.32
OQ: Distress	-0.08	0.23	-0.34	.74
OQ: Interpersonal	-0.07	0.14	-0.53	.61
OQ: Social Role	-0.21	0.10	-2.03	.05
BDI	-0.29	0.14	-2.12	.05
BIS	-0.07	0.14	-0.54	.60
EuroQuol	0.65	0.08	8.26	<.001

Note. OQ-45: Outcome Questionnaire-45.2; BDI : Beck Depression Inventory ; BIS : Barrett Impulsivity Scale. Degrees of freedom for all analyses = 12.

Figure 1.

Number of criteria met for Personality Disorders over 24 months of psychotherapy (N = 13)



Note. Hierarchical Linear Modeling (base model): slope coefficient = -0.22; SE = 0.03; *t*-ratio (12) = -7.61, $p < .001$.