Taubner S, Kessler H, Buchheim A, **Kächele** H, Staun L (2011) The role of mentalization in the psychoanalytic treatment of chronic depression. *Psychiatry: Biological and Interpersonal Process 74: 51-59*

The role of mentalization in the psychoanalytic treatment of chronic depression

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Abstract:

Mentalization has been proposed as a key concept in understanding therapeutic change in patients with Borderline Personality Disorder (BPD). However, little is known about mentalization in chronic depression. This study investigated the role of mentalization in the long-term psychoanalytic treatment of chronic depression. Mentalization measured with the Reflective Functioning Scale (RFS) was examined in patients with chronic depression (n=20) in long-term psychoanalytic treatment and compared to healthy controls (n=20).

Results show that global RF scores did not differ significantly between patients and controls. However, depressed patients tended to have lower RF scores concerning issues of loss. Furthermore, RF was related to general personality functioning as measured by the Scales of Psychological Capacities (SPC), but was unrelated to symptoms and distress as assessed by the BDI and SCL-90. RF did not predict therapeutic outcome as measured with the BDI but predicted changes in general distress after 8 months of psychoanalytic treatment as measured by the SCL-90. Moreover, correlations between RF and the Helping-Alliance-Questionnaire indicated that patients with higher RF were able to establish a therapeutic alliance more easily compared to patients with low RF.

Introduction

The capacity to think about mental states of self and others as a metacognitive ability is considered a key factor in understanding therapeutic change, particularly in patients with Borderline Personality Disorder (BPD) (Fonagy & Bateman, 2006). Yet, with the exception of a first pilot study on depression (Fischer-Kern, et al., 2008), little is known about mentalization in chronic depression nor how mentalization - operationalized as Reflective Functioning (RF) by Fonagy and his colleagues (1998) - may affect the process of long-term psychoanalytic treatment of depression. In this paper we present the first results of an investigation into mentalization and therapeutic change as part of the Hanse-Neuro-Psychoanalysis-Study. Scores on the Reflective Functioning Scale (RFS) of 20 patients with chronic depression in long-term psychoanalytic treatment were compared to scores of 20 healthy controls.

Chronic depression

According to the WHO, depression is one of the most prevalent diseases worldwide (World-Health-Organization, 2002). Its high prevalence, together with substantial symptom severity and role impairment (Kessler, et al., 2003), ensure depression is a major public health issue. Distinctions between forms of chronic depression in the DSM-IV have recently been criticized on the basis that patients with dysthymia, double depression or major depressive disorders have been shown to present only minor differences in their clinical features, family history, and treatment response (Klein, Shankman, Lewinsohn, Rohde, & Seeley, 2004; McCullough, et al., 2003; McCullough, et al., 2000). It has therefore been suggested that only chronic and non-chronic forms of depression can be differentiated given their distinct long-term courses of recovery and relapse (Klein, Shankman, & Rose, 2006).

While the pharmacological treatment of depression is associated with relatively poor outcome (Hughes & Cohen, 2009) and with approximately 60-70% of patients meeting criteria for drug-treatment-resistant depression (Trivedi & Daly, 2008), there is considerable evidence for the efficacy of psychotherapy in the treatment of depression (Leichsenring, Hiller, Weissberg, & Leibing, 2006; Leichsenring & Rabung, 2008; Leichsenring, Rabung, & Leibing, 2004; Thase, Friedman, & Howland, 2001). However, meta-analyses show that only 50% of patients respond to short-term psychotherapy, and response rates drop to 27% when observations are extended to follow-ups after two years and more (Westen & Morrison, 2001). In contrast, evidence is accumulating that long-term treatments such as psychoanalytic therapy have persisting effects even after the end of therapy (Huber & Klug, 2009; Knekt, et al., 2008), although more long-term follow-up studies are required (Westen & Morrison, 2001). Regarding the mechanisms of change, it remains unclear whether longer treatment strategies promote new and qualitatively different effects compared to short treatments, which is why such studies should have a high priority (Kächele, Schachter, & Thomä, 2009).

Mentalization and psychopathology

In contrast to the extensive empirical research on impaired mentalization in BPD, research has only recently expanded the concept of mentalization to other psychopathologies, such as depression (Fischer-Kern, et al., 2008), anorexia nervosa (Skarderud, 2007) and panic disorders (Rudden, Milrod, Target, Ackerman, & Graf, 2006).

Fischer-Kern et al. (2008) report mean RF scores of 2.3 in a sample of 20 female psychiatric inpatients with Major Depression. However, the lack of control group and the inclusion of patients with substance dependency (20%) and psychotic features (25%) in this study may account for these very low scores on RF. In another pilot study, Rudden and colleagues (2006) found that patients with panic disorder did not show globally impaired RF but that their capacity to reflect on specific mental states and conflicts in relation to their symptoms

was impaired. The authors hypothesize that impaired, panic-specific RF was the result of specific defenses operating against highly charged and conflicted emotional states connected with panic symptoms. Longitudinal research on community samples highlights the fact that mentalization is a dynamic skill that has to be evaluated within a given attachment context (Target, 2008). Another study (Müller et al. 2006) investigated RF in eating and depressive disorders in a sample of 24 female inpatients. They found a median RF of 3 across the whole sample and a significant correlation between RF and the structure axis of the Operationalized Psychodynamic Diagnostics (OPD-Task-Force, 2008). RF at intake also predicted improvement in overall mental conditions through a 3-month in-patient therapy measured by the SCL-90. Interestingly, RF predicted positive treatment outcome independent from the structural dimensions of the OPD, underlining its clinical independence.

The present study aimed to investigate the role of mentalization in the psychoanalytic treatment of chronic depression. The study is based on the following hypotheses:

1. Patients with chronic depression are expected to have significantly lower scores on the RF scale compared to a non-clinical control group, particularly with regard to issues of loss and rejection.

2. RF is a metacognitive psychic capacity and therefore related to the Scales of Psychological capacities (SPC).

3. RF at baseline predicts therapeutic response (depressive symptoms and general distress) after 8 and 15 months of psychoanalytic treatment.

Methods

The Hanse-Neuro-Psychoanalysis Study assesses neural correlates of change during psychoanalytic therapy of patients with chronic depression (see Buchheim et al. 2008) and

was approved by the local Ethics Research Committee of the University of Ulm. Only those instruments used in data analysis pertinent to the hypotheses outlined above are presented.

Instruments

Adult-Attachment- Interviews (AAI) (George, Kaplan, & Main, 1984/1985/1996) were conducted by an experienced clinician (ST) and coded for attachment representations by a trained and reliable judge who was blind to patient status (AB). Final classifications of secure, dismissing, preoccupied or disorganized (unresolved trauma) attachment were calculated for each participant in accordance with scoring procedures outlined by Mary Main. The AAI consists of 20 questions asked in a prescribed order with standardized probes. Individuals are asked to describe their childhood relationship with their parents, choosing five adjectives to describe each relationship and supporting these descriptors with specific memories. To elicit attachment-related information they are asked how their parents responded to them when they were in physical or emotional distress (e.g., during times when they were upset, injured, and sick as children). Enquiries are made about memories of separation, loss, experiences of rejection, and times when the participant might have felt threatened, including those involving physical and sexual abuse. The interview requires that participant reflect on their parents' styles of parenting and that they consider how their childhood experiences with their parents have influenced their personality. The technique has been described as having the effect of "surprising the unconscious" (George, Kaplan, & Main, 1985) and allowing numerous opportunities for the interviewee to elaborate upon, contradict, or fail to support previous statements. Reflective functioning was assessed using AAIs pre- and post-treatment with patients and matched controls at baseline. Since this is an ongoing study, only pre-treatment baseline data concerning RF will be reported.

The Reflective Functioning scale assesses to what extent subjects understand attachment-related experiences in terms of mental states (Fonagy, et al., 1998). Statements are coded on

an 11-point-scale from anti-reflective (-1) to exceptionally reflective (9). Qualitative markers of RF are the acknowledgement of opaqueness of mental states, separateness of minds, developmental aspects and efforts to understand behavior in terms of mental states. Especially relevant for depression are those questions dealing with rejection and loss (Agid, et al., 1999) and will therefore be analyzed separately in the present study. The RF scale has been validated using the coherence scale of the AAI and shows good inter-rater reliability (Fonagy et al. 1998). In the present study, frequencies of RF statements referring to the self and those referring to the other were calculated separately in addition to Global RF scores. RF codings were completed by two trained and certified raters (one blind to patient or control status) with a high inter-rater reliability (Cronbach's alpha=.86).

Therapeutic outcome was measured by the symptom checklist by Derogatis (SCL-90) (Franke, 2002), the General-Severity-Index of symptom burden (GSI) and the Beck Depression Inventory (BDI) (Hautzinger, Bailer, Worall, & Keller, 1994). Therapeutic alliance was assessed by the Helping Alliance Questionnaire (HAQ) (Alexander & Luborsky, 1986). The HAQ contains 12 items rated on a six-point Likert scale based on two subscales: contentment (or satisfaction) with the therapeutic relationship and therapeutic outcome (Bassler, Potratz, & Krauthauser, 1995). In this study, we only use the global contentment with psychotherapy subscale.

Diagnoses were obtained with the German version of the Structural Clinical Interview (SCID 1+2) (Wittchen, Wunderlich, Gruschwitz, & Zaudig, 1996) performed by an experienced clinician (ST). Personality functioning was only assessed in the patient group using the Scales of Psychological Capacities (SPC) (Huber, Klug, & Henrich, 2006; Huber, Klug, & Wallerstein, 2006). The SPC is an observer-rated instrument whereby an interviewer asks participants to place themselves on a continuum between two extremes. External raters evaluate each answer on a scale between 0 (full capacity) and 3 (lowest capacity) with the

mean score of all 17 subscales constituting the global score of psychological capacities. Coding was completed by two raters (one external and blind to patient status) with a high inter-rater reliability (r =.90).

All Statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS 17.0).

Participants

Patients and controls were informed about the study via a written research protocol. Prior to assessment written and informed consent was obtained. Patient recruitment took place in an outpatient department of a psychoanalytic institute. Inclusion criteria were: (a) a main diagnosis of depression, (b) the presence of depressive symptoms for more than two years (chronic depression) (c) age between 18 and 60 years. Exclusion criteria were: (a) current and past substance abuse, (b) acute suicidality, (c) current and past psychosis, (d) cognitive and neural impairment, (e) claustrophobia, and other contraindications for fMRI-assessments (e. g. pregnancy, cardiac pacemaker, etc).

25 patients who met study criteria were allocated to psychotherapy treatment provided by psychoanalysts in private practices. After first assessments and psychotherapy allocation five patients dropped out of the study and/or out of psychotherapy. The 20 remaining patients started psychoanalytic psychotherapies with 2 to 4 sessions weekly. The treating psychoanalysts were highly experienced with an average of 22.4 years of professional experience. Four patients were on medication during the recruitment phase but discontinued medication before commencing psychotherapy. Controls were recruited through advertisements in local newspapers. Out of a pool of 80 subjects, 20 controls were chosen who had no history of psychiatric disorders as assessed by SCID1 and 2 and who were matched with patients in terms of age, gender and level of education (see Table 1 for

comparative demographics). Four controls dropped out after the first fMRI-assessment. Patients fulfilled diagnostic criteria for chronic depression (assessed by the SCID 1) with 11 patients also reporting recurrent major depression episodes, and nine presenting with double depression. Patients had an average history of 5.5 major depression episodes and the age of depression onset ranged from eight to 50 years (M=20, SD=9.5). 50% of patients also fulfilled criteria for an anxiety disorder and 65% had co-morbid personality disorders, mostly cluster C disorders (depressive and dependent personality disorders) with the exception of 3 cluster B disorders (narcissistic and borderline), as assessed using the SCID 2. Psychometric results at baseline were consistent with the clinical interviews: the mean BDI-score for patients was M=24.3 (SD=9.3, range from 10 to 40) and for controls M=2.4 (SD=2.8, range from 0.0 to 9.0); while the mean GSI-score for patients was M=1.4 (SD=0.6, range from .19 to 2.5) and for controls M=.19 (SD=0.13, range from .02 to .44). 16 patients reported former unsuccessful psychotherapeutic and/or drug treatment. Contrary to expectation, the distribution of attachment representations was not different between groups (Pearsons's Chi Square test, df=3, 3.27, p=.35). Only one control in contrast to four patients was classified as secure. Both groups included mainly dismissing classifications (10 controls and nine patients), only one control and no patient was classified preoccupied. Finally, 4 controls and 7 patients were classified as Disorganized (unresolved trauma).

Table 1

Characteristics of the two samples

	Patients (n=20)	Controls (n=20)
Age		
M (SD)	39.2 (12.7)	37.1 (11.6)
Range	20-64 y	21-64 y

Sex	16 f + 4 m	16 f + 4 m
Education	average: 7	average: 4
	high: 12	high: 16
Diagnosis	11 Major Depression and 9 Double	
(SCID-I,	Depression	
SCID-II)	5.5 Major Depression Episodes (m)	No psychiatric disorders
	50% comorbid anxiety-disorders, 65 %	
	comorbid PD (cluster b and c)	
BDI		
M (SD)	24.3 (9.3)	2.4 (2.8)
GSI		
M (SD)	1.4 (.6)	0.19 (0.13)

Results

At baseline, there were no significant correlations between RF and the BDI and GSI respectively within the patient group. However, there was a trend for a correlation between the patients' general satisfaction with the therapeutic alliance as measured with the HAQ and RF scores. (r_s= .48, p=.066).

Regarding global RF scores, no significant differences were found between patients and controls (t-test for independent samples). Mean RF scores were M=4.0 (SD=1.0) for patients and M=3.6 (SD=1.5) for controls. Both groups had significantly more reflective statements concerning the self than concerning other persons. For patients M=12.3 (SD=3.0) reflective statements concerning the self were coded in comparison to M=5.9 (SD=2.2) reflective statements concerning the other (paired samples, t(19)=8.2, p=.000). Controls had M= 9.4 (SD=2.4) self related reflective statements in comparison to M= 5.9 (SD=2.2) reflective statements concerning the other (paired samples, t(15)=6.1, p=.000). However, depressed

patients showed significant differences in the frequency of RF statements referring to the self compared to the control group (t(34)=2.0, p=.009) but no differences in the frequency of statements of reflection about another person (t-test for independent samples). While RF scores for loss and rejection yielded no significant difference comparing patients and controls, a paired t-test showed that only depressed patients had a lower RF score (approaching significance) for loss (t(19)=2.04, p=.055) in relation to their global RF scores (compare table 2).

Table 2

RF results from chronically depressed patients in comparison to healthy controls

	Patients n=20	Controls n=16	t-test for independent samples (p)
RF-Global Score M (SD)	4.0 (1.04)	3.56 (1.5)	.32
Frequency of RF statements referring to the self M (SD)	12.3 (3.0)	9.7 (2.4)	.009
Frequency of RF statements referring to the other M (SD)	5.9 (2.2)	5.9 (2.2)	.97
RF Score „Loss“ M (SD)	3.4 (1.5)	3.4 (1.7)	.93

One-sided Spearman's rho correlations were significant for SPC and RF in the expected direction (r_s=-.41, p=-.047), indicating that high RF was associated with high psychological capacities (low SPC score).

There was a trend that disorganized attachment (unresolved trauma) is associated with lower RF (M= 3.3, n=11, SD=1.4) in comparison to organized attachment representations (secure, dismissing and preoccupied, M=4.0, n= 25, SD=1.2) (independent samples, t(34)=1.5, p=.13).

Therapeutic outcome

Therapeutic outcome was measured at baseline (T1), after 8 (T2) and 15 months (T3) of psychoanalytic treatment. Analyzing changes in GSI and BDI using repeated measures Anova over time from T1 to T3, there were significant changes in GSI- and BDI-scores over the course of psychoanalytic treatment with high effect sizes observed (GSI: p=.000, F=68.5, df=16, ES=1.36) (BDI: p=.000, F=30,3, df=16, ES=1.25). To test if baseline RF explained the variance in depressive symptom and general symptom distress change, multiple hierarchical regressions were performed. BDI and GSI scores from T2 and T3 were used as dependent variables, while BDI, GSI and RF scores from T1 served as independent variables. Results show small to moderate effect sizes, and while significance was not reached this is likely due to the small sample size. From T1 to T2 RF explains 2% of the variance of changes in BDI scores (p=.50) and 7% of the variance of GSI-change (p=.19). From T1 to T3 RF explains no variance of BDI-change and 1% of the variance of GSI-change (p=.60).

Results from repeated measures anova of changes in HAQ over time from T1 to T3 showed near-significant changes in HAQ-scores in the process of psychotherapy with large effect sizes (p=.082, F=4.1, df=16, ES=.95). Hierarchical regressions were performed to calculate to what extent RF accounts for the variance in HAQ changes. From T1 to T2 RF explained 6% of HAQ change (p=.5) and from T1 to T3 RF explained 3% of HAQ change (p=.6).

Discussion

Results from the current study indicate that while RF was related to general psychic capacities as measured by the SPC it was unrelated symptoms as measured by the BDI and SCL-90.

These findings therefore contribute to the construct validity of RF as independent from symptom severity but as related to general personality functioning.

Results from the Muller et al. (2006) study of inpatient short-term treatment were partly replicated in this study, since RF scores at baseline predicted therapy outcome in terms of general symptom distress after 8 months but not after 15 months of psychoanalytic treatment. Furthermore, RF had a small or negligible effect on changes of depressive symptoms. Therefore, impairments in RF were not related to therapeutic changes of specific depressive symptoms but to changes in general symptom distress in the first 8 months of psychotherapy. The correlation between RF and HAQ and the moderately high predictive value of RF on HAQ changes within the first 8 months of psychoanalytic treatment could indicate that patients with higher RF establish a therapeutic alliance more easily than patients with lower RF. In this sense, alliance could be moderated by RF and explain the relationship between RF and therapeutic outcome of former studies. Because of the small sample size it is still an open question as to whether RF should be considered an outcome factor rather than an outcome moderator. If low RF corresponds with slower distress changes it might also be a predictor of therapy drop-out and non-responsiveness to psychoanalytic treatment. This assumption cannot be tested in our samples because drop-outs took place before the assessment of RF.

Results from the present study differed from those reported by Fischer-Kern et al. (2008) since the general impairment of mentalization in chronically depressed patients was not replicated. Different selection criteria may account for differences in the results. While Fischer-Kern et al. (2008) examined inpatients who may have been in an acute major depressive episode, including patients with psychosis and substance abuse, the present study investigated chronically depressed patients who were stable enough to start a high frequent outpatient therapy and who lived in stable socio-economical conditions concerning relationship and employment settings. The relatively high SPC scores of the patient sample

contribute to the assumption that our sample represents a high functioning group of chronically depressed patients and also emphasizes the importance of the assessment of personality functioning for the understanding of treatment prognosis. In contrast to Fischer-Kern, we found conflict specific impairment in RF concerning loss which empirically supports psychodynamic assumptions about the etiology of depression.

Another, and perhaps the most plausible explanation for the surprisingly low RF scores in the control group, is the finding that most of the normal controls had insecure and disorganized attachment representations. We do not consider the low RF scores as an artifact of lower motivation to participate because the controls that remained for two years in the study were highly intrinsically motivated. Still, the results highlight the fact that the etiology of depression is multi-causal and cannot simply be explained by a unitary factor such as low RF. However, RF may serve as protective factor that is crucially involved in the development of resilience in the face of aversive early experiences.

The high number of statements about the self in comparison to statements about others in both groups leads to the conclusion that the AAI prompts more reflections about the self than about others. It is possible that the tendency of depressed patients to reflect more about the self than about others in comparison with healthy controls is due to negative thoughts, affects and memories blocking their reflection about others. Therefore, it may be fruitful to foster reflection about the other as part of therapeutic technique in chronic depression. Furthermore, the results concerning failures of mentalization in the patient group in relation to conflict laden topics (loss) may indicate that outpatient therapy with chronic depressed patients should focus on the content of representation instead of RF in general. Still it remains an open question if long-term psychoanalytic therapy may lead to improvents in RF thus enabling chronically depressed patients to cope with conflict-ridden topics. Future analysis of this

sample will reveal if global RF, conflict-related RF and/or the frequency of reflections about self and others have changed after 20 months of treatment.

Acknowledgements

We gratefully acknowledge the invaluable cooperation of patients and therapists. Thank you very much to Jo Guiney for her careful translation work. We also thank Dr. Dorothea Huber and Dr. Günther Klug for supervising the SPC assessments and scoring, and Johannes Zimmermann for his statistical support. ST and HeK were fellows of the Hanse Institute for Advanced Study, Delmenhorst, during data aquisition. AB and HK were fellows of the Hanse Institute for Advanced Study planning the study design. This study was supported by a research grant of the International Psychoanalytic Association.

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