Innholdsfortegnelse

Forord

For fire år siden søkte jeg på jobb som vitenskapelig assistent for MCT-gruppen ved Psykologisk Institutt NTNU. Gjennom dette arbeidet har jeg fått uvurderlig opplæring og erfaring med diagnostisering, rapportskriving, administrering av forskningsdata, og ikke minst møtt mange pasienter gjennom depresjonsprosjektet og sosialfobiprosjektet. For dette vil jeg rette en stor takk til veiledere Odin Hjemdal og Roger Hagen for all opplæring, oppfølging og muligheter jeg har fått gjennom dette. Takk også til Patrick Vogel for samarbeidet i sosialfobiprosjektet og til kollega Maud Caroline Berg Smeby for samarbeidet i begge prosjekter. Henrik Nordahl har videre vært en inspirasjon hva gjelder interesse for behandlingsforskning og metakognitiv terapi og har fulgt meg opp hele veien med opplæring, råd og tilbakemeldinger. Videre var det spesielt artig å få lov til å velge ut en problemstilling til hovedoppgaven på data jeg har vært med å samle inn, har god kjennskap til, og som jeg har hatt en særlig interesse for. Jeg vil også rette en takk til mine nærmeste: Marte, mamma og pappa, for all støtte og tilbakemelding jeg har fått i forbindelse med oppgaven.

I henhold til retningslinjer for utforming av hovedoppgave på profesjonsstudiet i psykologi NTNU (vedtatt 18.03.13) har jeg valgt en form på hovedoppgaven som gjør at den kan kommuniseres til interesserte brukere. Hovedoppgaven er dermed utformet som en forskningsartikkel med håp om publisering. Dette innebærer at oppgaven er noe kortere enn andre oppgaver som følger en annen form, vil være. Videre har jeg selv vært med på å samle inn dataene som oppgaven er basert på. Jeg valgte selv ut problemstilling og gjennomførte analyser under veiledning av Odin Hjemdal og Roger Hagen. I oppgaven spesifiseres det at dataene som brukes er en del av et større forskningsprosjekt knyttet til effekten av metakognitiv terapi ved depresjon.

Abstract

Introduction: Interpersonal problems have been found to be significantly elevated in patients with major depressive disorder (MDD). However, focusing exclusively on interpersonal factors in therapy, might lead to less than optimal treatment considering recent research tying rumination, an intra-psychic process to interpersonal problems and MDD. This research indicates therapies that target rumination in treatment of interpersonal problems in MDD. Method: This thesis explored relationships between change in depression, interpersonal problems and rumination in MDD patients receiving Metacognitive Therapy (MCT) in a randomized clinical trial. Results: MCT for MDD was associated with large improvements in interpersonal problems *(d* = 1.25), depression *(d* = 2.55), and rumination *(d* = 2.45). Further, change in rumination significantly explained variation in treatment outcome (BDI) over and above change in interpersonal problems. After controlling for change in rumination, interpersonal problems did not significantly explain additional variance in treatment outcome. Conclusion: MCT, which targets established essential transdiagnostic mechanisms across psychopathology, could be a favorable treatment for patients with depression and interpersonal problems. Future research should compare MCT with other evidence-based treatments for interpersonal problems and depression.

Major depressive disorder (MDD) is projected to be the second leading cause of disease burden worldwide in the year 2030 (Mathers & Loncar, 2006). Many studies have shown that MDD is a highly recurrent illness, with risk increasing progressively with each successive episode, and with a subsequent decrease as the duration of recovery increases (Solomon et al., 2000). Interpersonal problems are common among patients with psychiatric disorders (Bjerke, Hansen, Solbakken & Monsen, 2011), and have been found to be significantly elevated in patients with MDD compared to healthy controls (Barrett & Barber, 2007). Interpersonal problems can be defined as unremitting difficulties experienced by individuals in their social relationships (Horowitz, Rosenberg, Baer, Ureño, & Villaseñor, 1988; Horowitz, Rosenberg, & Bartholomew, 1993). Patients typically present interpersonal problems as salient concerns, in addition to distressing symptoms when being evaluated for therapy (Horowitz et al., 1988).

For patients struggling with MDD, interpersonal problems like social difficulties and poor peer relationships seem to be present from early age (Lewinsohn, Rohde, Seely, Klein, & Gotlieb, 2003). Further, interpersonal domains of distress have been found to predict MDD recurrence over and above well-recognized depression risk factors such as dysfunctional cognitions and personality disorder symptoms in emerging adults (Sheets & Craighead, 2014). Clinical studies of MDD patients using the Inventory of Interpersonal Problems (IIP; Horowitz et al., 1993) have overall suggested a socially avoidant interpersonal style (Barrett & Barber, 2007; Renner et al., 2012). This could lead to MDD patients being isolated and bereaved of the potential resources of their social environment, since social support has been associated with being more likely to achieve complete satisfactory mental health after suffering from depression (Fuller-Thomson, Agbeyaka, Lafond, & Bern-Klug, 2016). Previous research indicates an array of interpersonal factors as inherent to depression. These include markedly, and moderately (but not mildly) insecure attachment orientations (Bifulco et al., 2006), excessive reassurance-seeking (Joiner & Metalsky, 2001), passivity and being withdrawn (Allan & Gilbert, 1997), and self, peer, and observer-rated deficiencies in interpersonal style in group interactions (Youngren & Lewinsohn, 1980). Additionally, interpersonal processes such as excessive reassurance seeking and negative feedback seeking as responses to negative affect could be important interpersonal processes leading to and maintaining depression (Evraire & Dozois, 2011). These processes were proposed to be driven by self-verification processes (Giesler, Josephs, & Swann, 1996) rooted in early attachment history, and stored as core-beliefs (Dozois & Beck, 2008). Although there seems

to be a link between interpersonal problems and depression, there seems to be a lack of adequate theoretical models and frameworks for understanding the above-mentioned processes (Evraire & Dozois, 2011).

Interpersonal therapy (IPT: Weissman, Markowitz, & Klermann, 2000), a common therapy for treating depression, builds on interpersonal theories such as relational theory (e.g Sullivan, 2013), attachment theory (Bowlby, 1973), and various empirical research on stress (Beach, Sandeen, & O´Leary, 1990), social support (Duer, Schwenk, & Coyne, 1988) and the reciprocity between a disorder and its interpersonal context (Coyne, 1976), with an underlying diathesis-stress theory. IPT targets the interpersonal context of the disorder, rather than focusing on symptoms, thoughts, and behavior associated with specific disorders (Lipsitz & Markowitz, 2013). The cause of the disorder is not thought to reside within the patient, but outside as an interpersonal problem (e.g. loss, crisis, etc.). In treating depression, the therapist identifies interpersonal areas of concern, focusing on transitions and changes in the patient´s interpersonal milieu, and facilitates effective communication and problem-solving skills for the identified area through rehearsing strategies with the patient in sessions. The patient is encouraged to rehearse with significant others outside of therapy as well (Mufson & Sills, 2006; Weissman et al., 2000). The integrative approach of specific and common therapeutic factors in IPT has been valued (Lipsitz & Markowitz, 2013).

Interpersonal theories have sought to understand underlying interpersonal dynamics hypothesized to be causal and maintaining factors in psychological disorders (Horowitz et al., 1993). Proponents of an interpersonal account of depression have argued that *"the strongest implication of the interpersonal approach is that depression not only has interpersonal features and consequences but also is fundamentally interpersonal in nature"* (Joiner, Coyne, & Blalock, 1999, p. 7). Even though interpersonal factors are emphasized in several theories in both understanding and treating depression, it seems that it fails to consider recent research tying intra-psychic processes of relevance to both depression and interpersonal problems. Joiner (2000), in his review of possible mechanisms of depression chronicity, mentions rumination as a possible "cognitive motor" contributing to the development of maladaptive interpersonal processes. Further, there is evidence that interpersonal problems observed in depression, such as impaired problem solving, could be a consequence of rumination, and not a prerequisite (Watkins & Baracaia, 2002). In the following, research on rumination, an intra-psychic process, and its link to depression and interpersonal problems is presented.

Rumination is a well-established factor implicated in both the onset and perpetuation of depression through experimental as well as prospective longitudinal studies. Rumination can be conceptualized as repetitive thinking about symptoms and the possible causes and consequences of depressive symptoms (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). Nolen-Hoeksema´s (1991) research has also demonstrated that people with a ruminative response style have longer and more severe episodes of depression than people without a ruminative response style. Jones, Siegle, and Thase (2008) found that pre-treatment level and severity of rumination were related to later initial remission and lower odds of achieving remission in cognitive therapy for depression, indicating that rumination is a central process of importance for treatment response. The tendency to engage in rumination further seems to be stable over time (Bagby, Rector, Bacchiochi, & McBride, 2004; Just & Alloy, 1997).

Research also supports rumination as a central process leading to more negatively biased interpretations of events, and therefore hindering adaptive interpersonal problem solving (Lyubomirsky & Nolen-Hoeksema, 1995). Nolen-Hoeksema and Davis (1999) followed a group of people during 18 months before and after the loss of a loved one due to a terminal illness. They found that participants with a ruminative coping style, compared to those without a ruminative coping style, sought more social support, but perceived having less of their social needs met. In a cross-sectional study by Lam, Schuck, Smith, Farmer, and Checkley (2003), investigated the links between habitual rumination, distracting, interpersonal distress, depression, social functioning, and hopelessness in a sample of 109 outpatients suffering from unipolar depression. They divided the sample into ruminators and non-ruminators, and distractors and non-distractors using a median split. They found that ruminators had significantly more symptoms of depression and lower social functioning, than non-ruminators. Distractors had significantly less symptoms of depression and higher social functioning matched with non-distractors. Further ruminators had consistently higher IIP scores than non-ruminators, and the opposite pattern was observed for distractors. Pearson, Watkins, Mullan, and Moberly (2010a) examined the relationship between brooding (a maladaptive sub-component of depressive rumination, see Treynor, Gonzales, & Nolen-Hoeksema, 2003), and specific interpersonal styles in a sample consisting of currently depressed (n = 20), previously depressed (n = 42) and never-depressed (n = 32) participants. They controlled for gender, and depressive symptoms. Brooding significantly predicted underlying rejection concerns (rejection sensitivity), and having a submissive interpersonal profile. Further, rumination and brooding were significantly positively correlated with all of

the psychosocial variables, indicating a close relationship between rumination, brooding, and psychosocial functioning.

The direction of the relationship between interpersonal problems and rumination is however complicated. Pearson, Watkins, and Mullan (2010b) found that brooding predicted depressive symptoms over time, but that this effect was mediated by a submissive interpersonal style, indicating that the interpersonal style explained more in the relationship between brooding and depressive symptoms over time. Pearson, Watkins, and Mullan (2011) highlights that research support rumination and its correlation to a specific maladaptive interpersonal style characterized by submissive (overly-accommodating, non-assertive, and self-sacrificing) behaviors, as well as an underlying attachment orientation prone to rejection sensitivity. In a recent study Pearson et al. (2011) found that baseline rejection sensitivity predicted increased rumination six months later, after statistically controlling for baseline rumination, gender, and depression. Baseline rumination in turn, did not predict the submissive interpersonal style or rejection sensitivity.

An important question is whether interpersonal problems and rumination in MDD patients are of importance when it comes to treatment. Therapeutic models differ when it comes to their understanding of the causal mechanisms behind psychopathology. This has implications for whether interpersonal problems, rumination, or both, are emphasized or not during therapy. It is well documented that patients suffering from depression also suffer from interpersonal problems and outcomes (Joiner & Metalsky, 2001; Barrett & Barber, 2007). However, the emphasis on interpersonal problems in treating depression as seen in IPT, fails to consider recent research tying rumination, an intra-psychic process, to both depression and interpersonal problems (Lam et al., 2003; Nolen-Hoeksema et al., 2008; Pearson et al., 2010a). These findings suggest that therapies which target rumination could bear promise when it comes to treatment for individuals struggling with depression and interpersonal problems. However, there are few treatment models that explicitly target rumination within a broader theoretical framework as a central process. Metacognitive Therapy (MCT: Wells, 2000) is an exception which focuses on reducing rumination, and therefore could be a favorable treatment for patients struggling with depression and interpersonal problems.

MCT is based on the Self- Regulatory Executive Function model (S-REF model, Wells & Matthews, 1994; 1996), which provides a theoretical framework for understanding the initiation and maintenance of emotional disorders. Emotional disorders follow, according to metacognitive theory, from an inflexible and maladaptive thinking style, named the

Cognitive Attentional Syndrome (CAS: Wells & Matthews, 1994; 1996; Wells, 2000). The CAS consists of worry, rumination, threat monitoring and dysfunctional coping strategies. Rumination is seen as a cognitive coping strategy characterized by perseverative dwelling on e.g. thoughts, feelings, and e.g. previous events or interpersonal aspects.

CAS strategies, such as rumination, are in turn hypothesized to be driven by metacognitive knowledge rather than external factors. In particular, negative metacognitive beliefs about the uncontrollability and danger of thinking are likely to hinder awareness of executive control such as attentional flexibility, resulting in persistence of the CAS and emotional distress (Wells & Matthews, 1994; Wells 2000). According to the metacognitive model, the activation of the CAS can have interpersonal consequences e.g. by enhancing emotional distress or by the selection of maladaptive coping strategies such as avoidance or drinking alcohol. The therapy aims to enhance self-regulatory skills and predict that modifying underlying metacognitive beliefs and replacing the CAS with adaptive coping, will enhance self-regulatory capacity and therefore be beneficial for dealing with e.g. interpersonal disputes and other external stressors. Interpersonal problems and distress are therefore addressed in MCT when linked to CAS activity, to socialize the patient to the model through modifying erroneous metacognitive beliefs and enable flexible executive control over processing (labeled meta-mode) as opposed to CAS activity (labeled object-mode). A recent statistical test of the metacognitive model for depression indicated a good model fit in a large sample (Solem, Hagen, Hoksnes, & Hjemdal, 2016). Metacognition and rumination were found to explain a significant amount of variance in depressive symptoms (51 %).

Interpersonal problems have been implicated as an intrinsic part of major depressive disorder, and therefore pose a challenge when it comes to treatment. Both depression and interpersonal problems have been linked to rumination. However, there have been few studies looking at how these variables are connected and how they contribute, or relate to change in depressive symptoms during the course of therapy. At the Department of Psychology, NTNU, a randomized controlled clinical trial on Metacognitive Therapy for patients with major depressive disorder has been conducted (Hagen et al., 2017). Two of the measurements used in the study were the Inventory of Interpersonal Problems (IIP-64-C; Alden, Wiggins, & Pincus, 1990), and the Rumination Response Scale (RRS; Nolen-Hoeksema & Morrow, 1991). This thesis employs data from this trial to test the following hypotheses:

1. MCT is an effective treatment for interpersonal problems in patients diagnosed with a primary diagnosis of major depressive disorder.
2. Pretreatment interpersonal problems negatively affect change in depressive symptoms following MCT for major depressive disorder after statistically controlling for initial level of rumination before therapy.
3. Change in level of interpersonal problems from pre- to post-treatment positively explains additional variation in treatment outcome after statistically controlling for change in rumination during therapy.
4. Change in level of rumination from pre- to post-treatment positively explains additional variation in treatment outcome after statistically controlling for change in interpersonal problems during therapy.
5. Change in rumination and interpersonal problems from pre- to post-treatment both contribute to treatment outcome positively, but rumination is more important when it comes to change in depressive symptoms pre to post therapy.

Method

Participants

Three of the participants were Asian, while the majority of participants were ethnic Norwegians. The participants mean age was 33.7 (*SD* = 10.4) years ranging from 18 to 54. The participants had been in contact with other health services prior to participation in the trial. Thirty had seen their general practitioner because of depression, nine had been medicated with SSRIs, 21 with treatment at outpatient clinics by psychologists/psychiatrists, three patients had inpatient treatment stays, and one participant had been treated with Electroconvulsive Therapy (ECT). Three participants were on SSRIs when entering the trial, and were included on the terms that they kept their dosage stable throughout the trial. MDD with recurrent episodes was most common in the sample (79,5%), only 20.5 % were diagnosed with a single current depressive episode. The mean age for the debut of depression was 26.2 (*SD* = 11.7). The sample demonstrated a high level of comorbidity both on axis I and axis II disorders. A total of 13 patients (33.3%) had depression as their only diagnosis. See Table 1 below for further demographic and diagnostic information.

Table 1 about here

Measurements

Structured clinical interviews. The Structural Clinical Interview for DSM-IV axis I disorders (SCID-I; First, Spitzer, Gibbon & Williams, 1995) and the Structural Clinical Interview for DSM-IV axis II personality (SCID-II; First, Spitzer, Gibbon, Williams, & Benjamin, 1995) were administered pre- and at post- treatment. The Hamilton Rating Scale for Depression (HRSD-17; Hamilton, 1967) was also administered pre waiting list, and pre-treatment, but not post waiting list before starting treatment. SCID I + II are widely used structured clinical interviews that assess DSM–IV axis I + II psychiatric diagnoses. After treatment, SCID I + II modules matching the patients pre-treatment diagnosis were administered again to evaluate if they still met criteria for clinical diagnosis after receiving treatment.

Self-rating inventories. A number of self-rating inventories were used in the trial. Relevant to this thesis are, the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), the Rumination Response Scale (RRS; Nolen-Hoeksema & Morrow, 1991) and the shortened version of the Inventory of Interpersonal Problems (IIP-64-C; Alden et al., 1990).

Beck Depression Inventory (BDI; Beck et al., 1961). The BDI measures levels of depressive symptoms containing 21 self-reported items. Items are rated on a four-point Likert-scale ranging from 0 to 3, evaluating the severity of each symptom. Several studies have supported the BDI as a reliable and valid measure of severity of depressive symptoms in both clinical (Cronbach´s alpha .86) and non-clinical (Cronbach´s alpha .81) populations (Beck, Steer and Garbin, 1988). Beck and colleagues have categorized the BDI total scores in the following manner: 0–9 indicates minimal depression, 10–18 mild, 19–29 moderate, and 30–63 indicates severe depression.

Rumination Response Scale (RRS; Nolen-Hoeksema, & Morrow, 1991). The RRS assesses the tendency to ruminate in response to a depressed mood. Items (22) are scored on a 4-point Likert-scale from 1 (almost never) to 4 (almost always), with the overall scores range from 22 to 88. Items concerns repetitive and passive thinking about symptoms and the possible causes and consequences of these symptoms. The RRS has demonstrated high internal consistency, with Cronbach´s alpha ranging from .88 to .92 (Luminet, 2004). Nolen-Hoeksema et al. (1999) found a test-retest correlation of 0.67 over 12 months.

Inventory of Interpersonal Problems (IIP-64-C; Alden et al., 1990). In this study the shortened version (64 items) with 8 subscales (containing 8 items each) organized in a

circumplex manner was used. The eight subscales are labeled: overly domineering (PA), overly vindictive (BC), overly cold (DE), overly socially avoidant (FG), overly nonassertive (HI), overly exploitable (JK), overly nurturant (LM), and overly intrusive (NO). Participants scores can further be viewed as a circumplex, with the eight subscales represented on different spatial locations (octants). The circumplex is thought to indicate specific behaviors, or a set of feature characterizations of an individual´s personality and interpersonal problems, using the octants as a heuristic device (Horowitz et al., 1993). The IIP total score is the mean score across all items, representing a global score of interpersonal problems or interpersonal distress. The IIP has received support as a valuable instrument with regards to its sensitivity to change during the course of therapy (Huber, Henrich, & Klug, 2007; Borkovec, Newman, Pincus, & Lytle, 2002). Alden et al. (1990) found Cronbach alpha´s ranging from .72 to .85 for subscales on the IIP.

The IIP has been used to map interpersonal patterns among general outpatient groups (Bjerke et al., 2011; Horowitz et al., 1993; Puschner, Kraft, & Bauer, 2004) patients with depression (Barett & Barber, 2007), patients with social phobia/anxiety (Kachin, Newman, & Pincus, 2001), patients with obsessive compulsive disorder (Solem et al., 2015), patients with general anxiety disorder (Borkovec et al., 2002) and individuals with a personality disorder (e.g Soldz, Budman, Demby, & Merry, 1993). The IIP has also been used to assess which interpersonal problems change more readily in therapy.

Procedure

The trial was registered at ClinicalTrials.gov (https://clinicaltrials.gov/show/NCT01608399) and approved by the Regional Medical Ethics Committee in Norway (ref.nr. 2011/1138). The target group for the trial was patients with a primary depressive disorder. Single and recurrent depressive episodes were classified as mild, moderate or severe.

Inclusion criteria for the study were (a) signed written informed consent, (b) diagnosed with a primary major depressive disorder according to the Structured Clinical Interview for DSM-IV, (c) 18 years or older. Exclusion criteria were (a) known somatic diseases, (b) psychosis, (c) current suicide intent, (d) PTSD, (e) Cluster A or cluster B personality disorder, (f) substance dependence, (g) not willing to accept random allocation, (h) Patients not willing to withdraw use of benzodiazepines for a period of 4 weeks prior to entry to the trial.

The recruitment of participants began in January 2013, and ended January 2015. The trial was advertised through newspapers, radio, social media, and through letters to general practitioners, with information concerning the study and referral. Participants therefore were treatment-seeking individuals referred by their general practitioner or self-referred. Participants were upon contact screened via telephone. Possible candidates met with a trained assessor who delivered information about the study, obtained informed consent, and evaluated inclusion and exclusion criteria and severity of depression as well as other psychiatric conditions. Participants were evaluated with several diagnostic interviews, including SCID I, SCID II and the Hamilton Rating Scale for Depression (HRSD; Hamilton, 1967). An independent assessment team conducted the interviews at pre- and post-treatment. The participants allocated to WL also received a telephone call before entering therapy where the SCID-I depression module was administered by the assessment team. Follow-up data was solely based on self-report. Consensus upon diagnosis was achieved in collaboration with two senior researchers who also watched videotaped recordings of the interviews. Points of assessments were before treatment, after the wait period (waiting list group only), after treatment, and at 6, and 12 months follow-up.

Participants consenting to the terms of the trial, and who met inclusion criteria´s, were randomly assigned to immediate MCT (10 sessions) or to a 10-week waiting list (WL). The WL-group received 10 sessions of MCT after the waiting period. Two factors were controlled for in the randomization: Gender and number of previous depressive episodes. All participants entering treatment directly after randomization completed treatment. Two participants in the waiting list group dropped out during the waiting period. The reported reasons were moving away, and starting treatment at a private practice psychologist. These participants have not provided data since pre-treatment, but were still included in the intent to treat analyses. Further, their post-treatment results were replaced using the last observation carried forward method. From the waiting list condition two patients did not complete all 10 sessions, but terminated treatment after 8 and 9 sessions. Although these two did not meet with the assessment team for a post-treatment and follow-up interview, their self-report data was available from their latest treatment sessions and used as post-treatment results. In all, 17 patients completed MCT after first being allocated to waiting list, culminating in a total of 35 post-treatment interviews.

Treatment

The treatment followed the published manual of MCT for depression (Wells, 2009) consisting of 10 manual-guided sessions. MCT for depression can be summarized briefly in the following way: Case conceptualization and socialization followed by (1) increasing meta-awareness by identifying thoughts that act as triggers for rumination, learning about metacognitive control using attention training; (2) challenging beliefs about the uncontrollability of rumination and worry; (3) challenging beliefs about threat monitoring and dangers of rumination and worry; (4) modification of positive beliefs about rumination and worry; and (5) relapse prevention. For a full description of the MCT manual for depression see Wells (2009).

Therapists

The therapist group consisted of clinical psychologists trained in MCT. Supervision was provided by Adrian Wells, the originator of MCT, by watching videotaped session recordings (translated by the bilingual therapists) and giving ongoing feedback, thus ensuring high implementation quality. Also, the therapist group met every month for peer supervision. The study did not include formal measure of therapists' competence, treatment integrity or adherence. However, a split plot ANOVA found no significant differences between therapists with respect to changes in HRSD scores, $F(3,34) = 0.942$, $p = .43$), suggesting that the therapists provided treatment in a similar effective manner.

Data analysis

This thesis focuses on secondary outcome measures. The main outcome measures with results are presented in the original study published by Hagen et al. (2017). This thesis did not investigate differences between the control group (waiting list) and the active treatment group, as the original study did. All of the participants' scores were therefore gathered at the last measuring point before starting treatment, meaning after the waiting period of ten weeks for participants in the waiting list condition. The interpersonal profile of our sample, as well as the global amount of interpersonal distress, was explored using descriptive statistics. To investigate the effect of MCT on interpersonal problems, paired-samples t-tests were conducted for the IIP total scores, and on subsequent subscales of the IIP. Effect sizes were calculated using pooled standard deviations.

Several hierarchical regression analysis models were adapted to further explore predictors of change in depressive symptoms during therapy. Initial level of interpersonal problems pre-treatment, initial level of rumination pre-treatment, as well as change in rumination and interpersonal problems across treatment were used as predictors. Change variables were computed in SPSS by subtracting the patients mean total post therapy scores from the mean total pre therapy scores. The three new variables reflect how much the patients on average have changed on the different measures during the course of therapy (noted as change scores in the regression models).

There were very little missing data on BDI items (0.4%). In these cases missing items were replaced using mean item scores on the remaining items. The same procedure was applied to missing IIP total and subscale scores. In cases where the initial (first time of measurement) score was missing, this score was generated by calculating the mean score across the sample for the missing item.

Results

Group Comparisons

There was a significant decrease in total score interpersonal problems from pre-treatment (M = 1.60, SD = 0.44) to post-treatment (M = 0.90, SD = 0.66), t(38)= 6.91, p = .000. This is equal to a large effect size (d = 1.25). Further, all of the subcales on the IIP showed significant reductions (p = <0.0001) from pre- to post-treatment with effect sizes ranging from 0.65 (domineering) to 1.22 (socially avoidant). The total scores pre- and post-treatment, and on all of the subscales are further displayed in Table 2.

Table 2 about here

Regression Analyses

Before conducting hierarchical regression analyses, correlations were calculated between the dependent variable, and predictors (Table 3 and 4).

Table 3 and 4 about here

To test whether pre-treatment interpersonal problems negatively affect change in depressive symptoms following MCT for MDD after statistically controlling for initial level of rumination before therapy (hypothesis 2), a regression analysis was undertaken. Change-score on the BDI from pre- to post-treatment was used as the dependent variable. Then initial

pre-treatment rumination was entered in step one, before pre-treatment interpersonal problems was entered in step two. At step one, rumination did not contribute significantly to the regression model and accounted for 2.7% of the variation in change of depressive symptoms from pre- to post-therapy. Adding pre-treatment interpersonal problems explained an additional 14 % of variation, and this change in variation was significant ($p = < .05$) (Table 5).

Table 5 about here

To test whether change in level of interpersonal problems from pre- to post-treatment positively explains additional variation in treatment outcome after statistically controlling for change in rumination during therapy (hypothesis 3), a regression analysis was undertaken. Change-score on the BDI from pre- to post-treatment was used as the dependent variable. Then the change-score in rumination from pre- to post-treatment was entered in step one, before the change-score in interpersonal problems pre- to post-treatment was entered in step two. At step one, change in levels of rumination was significant and accounted for 40 % of the variation in change of depressive symptoms. Change in interpersonal problems explained an additional 6% of variation, but failed to reach significance ($p = .053$) (Table 6).

Table 6 about here

To test whether change in level of rumination from pre- to post-treatment positively explains additional variation in treatment outcome after statistically controlling for change in interpersonal problems during therapy (hypothesis 4), a regression analysis was undertaken. Change-score on the BDI from pre- to post-treatment was used as the dependent variable. The change-score in interpersonal problems was entered in step one, before the change score in rumination was entered in step two. Interpersonal problems was significant and accounted for 38% of the variation in change of depressive symptoms from pre- to post-therapy. Change in rumination was significant and explained an additional 8% of variation in change of depressive symptoms over and above change in interpersonal problems (Table 7).

Table 7 about here

To investigate the relative contribution of change in rumination and change in interpersonal problems in change of depressive symptoms pre- to post-therapy (hypothesis 5), a final regression model was adapted. Change-score on the BDI was used as the dependent variable. Then, the change-score in interpersonal problems, and the change-score in rumination was entered in step one. Together, the variables explained 46% of variation in the outcome variable, with rumination being the stronger and only significant variable (Table 8).

Table 8 about here

Discussion

In the current study, MCT for MDD patients was associated with large improvements in interpersonal problems (*d* = 1.25), depression *(d* = 2.55), and rumination *(d* = 2.45). Further, rumination was found to be the most important variable when it comes to change in depressive symptoms. This finding adds to an empirical body of research indicating rumination as a central process in both the development and maintenance of depressive disorders (Nolen-Hoeksema et al., 2008; Papageorgiou & Siegle, 2003). The large effects observed in depression and rumination indicate that MCT targets rumination, a perseverative thought process, effectively.

The reduction of interpersonal problems from pre to post treatment could be considered as a surprise given that MCT does not target interpersonal processes in the same manner or degree as for instance seen in IPT (Weissman et al., 2000). Our sample of MDD patients experienced significant interpersonal problems (total mean IIP score = 1.60), and depressive symptoms (total mean BDI score = 26), before entering therapy. In comparison, the IIP total score has been found to be 1.42 in a general Norwegian outpatient sample, and 0.97 in a normal reference sample (Bjerke et al., 2011).

There are several possible explanations concerning the reduction of interpersonal problems following MCT. One explanation could be that the metacognitive model of depression accounts for the observed treatment effect in depression and interpersonal problems. The metacognitive model of depression, based on metacognitive theory (Wells & Matthews, 1994) depicts that metacognitive beliefs control, monitor and appraise thinking. In this model, activation of the CAS can have interpersonal consequences by enhancing a depressive state, or by the selection of maladaptive coping strategies such as social avoidance or reducing activities.

MCT acknowledges the dynamic interplay between an individual and his/her environment. In lack of experience of executive control, patients have a tendency to try to avoid exposure to events that trigger rumination. In response to this, they can have various maladaptive coping strategies (e.g. avoid social situations, or people that typically trigger rumination). In this way maladaptive coping strategies in itself resemble dysfunctional interpersonal factors involved in depression like submissiveness, passivity, and being withdrawn (Allan & Gilbert, 1997; Cheung, Gilbert, & Irons, 2004; Irons & Gilbert, 2005). Fichman, Koestner, Zuroff, and Gordon (1999) suggests that self-criticism, a perseverative thought process in depressed individuals, may lead to behavioral avoidance and venting negative emotions, which in turn can deter proximal relationships and lead to interpersonal problems. The use of maladaptive coping strategies will also prevent patients from getting their negative interpersonal assumptions corrected (Wenzlaff & Wegner, 2000). In MCT, patients are encouraged to abolish negative coping strategies as a response to cognitive events, by replacing the CAS with adaptive coping. Enhancement of self-regulatory capacity could then be hypothesized to be beneficial for dealing with interpersonal disputes and other external stressors. Future research should therefore investigate the role of dysfunctional metacognitions, hypothesized to be the driving forces behind the CAS, hindering self-regulation, in change of interpersonal problems.

A second explanation concerning the simultaneous effect on depression and interpersonal problems following MCT could be related to MCTs transdiagnostic features in targeting similarities in maladaptive cognitive processing across psychological disorders (Wells & Matthews, 1996; Wells, 2009). As evident from the demographic and diagnostic information table (Table 1), our sample of MDD patients had a high level of comorbidity of axis I disorders (with GAD being the most prevalent), and axis II disorders (with OCPD being the most prevalent). MCT targets repetitive negative thinking, which has been found to be involved across multiple anxiety and depressive disorders, and further significantly elevated in patients with higher levels of comorbidity (McEvoy, Watson, Watkins, & Nathan, 2013; Aldao, Nolen-Hoeksema, & Schweizer, 2010). Axis I diagnosis and axis II diagnosis have been shown to be closely connected, with functional impairment as seen in personality disorders largely accounted for by axis I comorbidity (Lenzenweger, Lane, Loranger, & Kessler, 2007). This indicates that patients struggling with interpersonal problems and co-occurring axis I disorders could benefit from therapies targeting essential transdiagnostic

mechanisms implicated across psychopathology. The ability to self-regulate could represent such a mechanism (Sheppes, Suri, & Gross, 2015).

In the current study, change in rumination, and change in interpersonal problems were highly correlated as indicated in previous research (Lyubomirsky & Nolen-Hoeksema, 1995, Lam et al., 2003). Rumination and interpersonal problems further share certain features. For instance, both seem to be stable features in individuals over time (Bagby et al., 2004; Petty, Sachs-Ericsson, & Joiner, 2004), and they are both prevalent in depressive disorders (Barett & Barber, 2007; Nolen-Hoeksema et al., 2008). As MCT focuses on strengthening self-regulatory control (Wells, 2009), this could account for the large effects observed across measurements and through reduction of comorbidity from pre to post treatment.

In the present study interpersonal problems failed to reach significance in explaining additional variation in change in depressive change scores over and above change in rumination. Rumination, however, did significantly explain an additional 8 % of variation in depressive change scores over and above change in interpersonal problems. The final regression model further revealed that change in rumination was the stronger and only significant (p = .026) variable accounting for change in depressive symptoms. These results indicate that, when treating depression, focusing on changing interpersonal problems without changing levels of rumination, could lead to less than optimal treatment when targeting depression. Interpersonal therapy, although often mentioned as a potential treatment for depression (Pearson et al., 2010a; Pearson et al., 2010b; Pearson et al., 2011), has received critique due to its lack of a coherent conceptual theoretical framework (Lipsitz & Markowitz, 2013), and does not focus on intra-psychic processes in therapy. In a recent meta-analysis of thirty eight studies comparing IPT to various control conditions, Cuijpers et al. (2011) found an overall effect size of .63 (95% confidence interval [CI]=.36 to .90) when comparing IPT and a control group (16 studies), ten studies comparing IPT and another psychological treatment showed a non-significant differential effect size. Cuijpers et al. (2011) also found that studies applying the original IPT manual had significantly lower effect sizes than studies that used an adapted manual. Only nine of 38 (24 %) of the included studies met all quality criteria, and further they found indications of publication bias in some analysis. The results of the meta-analysis should therefore be interpreted with caution. Further, future research could therefore compare IPT and MCT for depression and interpersonal problems in randomized clinical trials to establish which therapy is the most effective in treating both depression and interpersonal problems.

This study has several limitations. First, measurements of interpersonal problems and rumination were solely based on self-report. Studies encourage the use of multiple sources of information when assessing interpersonal problems (Clifton, Turkheimer, & Oltmanns, 2005). Foltz, Morse, and Barber (1999) found a moderate degree of agreement on the IIP between romantic partners´ perceptions of self and partner. Second, the sample size in the study (n = 39) restricted the use of more sophisticated statistical procedures due to lack of statistical strength. Finally, it is important to point out that the present study does not draw conclusions about the cause and effect relationships among different variables. On the other hand, several strengths can also be mentioned. First, the study conducts actual prediction over time through regression models. Several studies in the past have employed cross-sectional designs. Second, the study investigated a clinical population who had been thoroughly assessed, and who participated in a randomized controlled clinical trial, giving more rigorous control when it comes to potential confounding or third variables of influence, such as spontaneous recovery (Whiteford et al., 2013) and potential noceboo effects (Furukawa et al., 2014). Previous studies have further largely depended on mixed clinical and community populations, or college students.

Conclusion

Interpersonal problems in major depressive disorder showed significant and large reductions following MCT for MDD. Further, change in rumination significantly explained variation in treatment outcome (BDI) over and above change in interpersonal problems. After controlling for change in rumination, interpersonal problems did not significantly explain additional variance in treatment outcome. This thesis supports the importance of change in intra-psychic processes (rumination) in the treatment of interpersonal problems in depression. Further, MCT, which targets established essential transdiagnostic mechanisms across psychopathology, could be a favorable treatment for patients with depression and co-occurring interpersonal problems. Future research should compare MCT with other evidence-based treatments for interpersonal problems and depression.

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Table 1.
Demographic and Diagnostic Information (*N* = 39)

	WL	MCT	Total pre	Total post
N	19	20	39	
Demographics				
Age	35.4 (8.8)	32.2 (11.7)	33.7(10.4)	
Women	52.6%	65.0%	23	
Norwegian ethnicity	94.7%	75%	84.6%	
Married/cohabitant	63.2%	40%	51.3%	
Full time employed	42.1%	42.1%	30.8%	
Full time student	15.8%	20%	17.9%	
Disability benefits	5.3%	30%	17.9%	
College/university	36.8%	40%	38.5%	
SSRIs	5.3%	10%	7.7%	
Previous treatment	63.2%	55%	59%	
Depressive episode				
Mild	0	0	0	0
Moderate	5	3	8	1
Major	2	4	6	0
Recurrent depression				
Mild	1	0	1	3
Moderate	8	9	17	0
Major	4	4	8	0
Axis I comorbidity				
GAD	5	5	10	2
Social phobia	1	0	1	1
Hypochondriasis	1	0	1	0
Panic disorder	1	1	2	0
EDNOS	0	1	1	0
Binge eating disorder	1	0	1	0
Trichotillomania	0	1	1	1
Total	*29*	*28*	*57*	*8*
Axis II comorbidity				
Avoidant	1	2	3	1
OCPD	5	5	10	7
Total	*6*	*7*	*13*	*8*

Notes: EDNOS = Eating Disorder Not Otherwise Specified, GAD = generalized anxiety disorder, Avoidant = avoidant personality disorder, OCPD = obsessive compulsive personality disorder. Reprinted with permission by Hagen et al. (2017).

Table 2.
Mean Item Scores on the IIP at Pre, and Post-Treatment for MDD Patients (*N* = 39)

	MDD pre-treatment Mean (SD)		MDD post-treatment Mean (SD)		MDD pre-/post-treatment	
IIP subscale	Mean	S.D	Mean	S.D	*t*	*d*
Total score	1.60	0.44	0.90	0.66	6.91*	1.25
Vindictive	1.05	0.55	0.51	0.49	5.73*	1.04
Overly exploitable	2.20	0.75	1.35	1.00	6.65*	0.96
Socially avoidant	1.94	0.66	1.01	0.85	6.84*	1.22
Intrusive	1.18	0.58	0.67	0.61	4.82*	0.86
Non-assertive	2.32	0.86	1.30	1.04	6.58*	1.07
Cold	1.33	0.77	0.71	0.74	5.22*	0.82
Domineering	0.78	0.54	0.45	0.47	3.91*	0.65
Overly nurturant	2.01	0.68	1.21	0.90	5.72*	1.00

Notes. IIP-C, Inventory of Interpersonal Problems – Circumplex; MDD, Major depressive disorder. Effect sizes were calculated using pooled standard deviations. The suggested cut-off (normal vs. clinical) for the IIP total score is 1.03 (Ryum, Stiles, & Vogel, 2007).
*$p < 0.000$.

Table 3.
Correlations between Change in Depressive Symptoms and Level of Post-treatment Rumination, and Post-treatment Interpersonal Problems (N = 39).

	BDIchange	Post-treatment RRS	Post-treatment IIP
BDIchange			
Post-treatment RRS	-.16		
Post-treatment IIP	-.39*	.08	

Notes. BDIchange, Beck Depression Inventory change-scores from pre to post-treatment, RRS, Rumination Response Scale, IIP, Inventory of Interpersonal Problems
*$p<0.01$

Table 4.
Correlations between Change-scores in Depressive Symptoms, Rumination and Interpersonal Problems from Pre to Post-treatment (N = 39).

	BDIchange	RRSchange	IIPchange
BDIchange			
RRSchange	.63**		
IIPchange	.62**	.69**	

Notes. BDIchange, Beck Depression Inventory change-scores from pre to post-treatment, RRSchange, Rumination Response Scale change-scores from pre to post-treatment, IIPchange, Inventory of Interpersonal Problems change-scores from pre to post-treatment
*$p<0.000$

Table 5.

Summary of Hierarchical Regression Analysis with Change in Depressive Symptoms (BDI) as the Dependent Variable, and Pre-scores in Rumination and Interpersonal Problems as Predictors (N = 39).

Steps Variable	F change	R^2Change	*ß*	*t*
1 RRSpre	1.01	2.7	-.16	-1.00
2 IIPpre	6.06	14.0	-.38	-2.46*

Notes.*= .05 ***= .000

Table 6.

Summary of Hierarchical Regression Analysis with Change in Depressive Symptoms (BDI) as the Dependent Variable and Change-scores in Rumination and Interpersonal Problems as Predictors (N= 39).

Steps Variable	F change	R^2Change	*ß*	*t*
1 RRSchange	24.64	40.0	.63	4.96 ***
2 IIPchange	4.01	6.0	.34	2.00

Notes.****p*<.000

Table 7.

Summary of Hierarchical Regression Analysis with Change in Depressive Symptoms (BDI) as the Dependent Variable and Change-scores in Interpersonal Problems and Rumination as Predictors (N = 39).

Steps Variable	F change	R^2Change	*ß*	*T*
1 IIPchange	22.61	38.0	.62	4.75***
2 RRSchange	5.38	8.0	.39	2.32*

Notes.*p<.05 *** p<.000

Table 8.

Summary of Hierarchical Regression Analysis with Change in Depressive Symptoms (BDI) as the Dependent Variable and Change-scores in Interpersonal Problems and Rumination as Predictors Entered at the Same Time in Step One (N = 39).

Variable	F change	R^2Change	*ß*	*t*
	15.33	46.0		
IIPChange			.34	2.00
RRSchange			.39	2.32*

Notes.*p<.05

Appendix

BECK DEPRESSION INVENTORY - BDI

Navn: _____ Alder: _____ Dato: _____

Instruksjon: I dette spørreskjemaet vil du finne setninger inndelt i grupper. Vennligst les alle setningene innenfor hver gruppe nøye. Deretter velger du den setningen i hver gruppe som best beskriver hvordan du har følt deg **den siste uka**, **i dag inkludert.** Sett så en ring rundt tallet utenfor setningen du har valgt. Dersom flere setninger innenfor samme gruppe synes å passe like godt, sett en ring rundt tallene til hver av dem.

Husk å lese alle setningene innenfor en gruppe før du velger, og pass på at du gir svar innenfor alle gruppene.

---

1. 0 Jeg føler meg ikke trist.
   1 Jeg er lei meg eller føler meg trist.
   2 Jeg er lei meg eller trist hele tiden, og klarer ikke å komme ut av denne tilstand.
   3 Jeg er så trist eller ulykkelig at jeg ikke holder det ut.

2. 0 Jeg er ikke særlig pessimistisk eller motløs overfor fremtiden.
   1 Jeg føler meg motløs overfor fremtiden.
   2 Jeg føler at jeg ikke har noe å se frem til.
   3 Jeg føler at fremtiden er håpløs og at forholdene ikke kan bedre seg.

3. 0 Jeg føler meg ikke som et mislykket menneske.
   1 Jeg føler at jeg har mislyktes mer enn andre mennesker.
   2 Når jeg ser tilbake på livet mitt, ser jeg ikke annet enn mislykkethet.
   3 Jeg føler at jeg har mislyktes fullstendig som menneske.

4. 0 Jeg får like mye tilfredsstillelse ut av ting som før.
   1 Jeg nyter ikke ting på samme måte som før.
   2 Jeg får ikke ordentlig tilfredsstillelse ut av noe lenger.
   3 Jeg er misfornøyd eller kjeder meg med alt.

5. 0 Jeg føler meg ikke særlig skyldbetynget.
   1 Jeg føler meg skyldbetynget en god del av tiden.
   2 Jeg føler meg temmelig skyldbetynget mesteparten av tiden.
   3 Jeg føler meg skyldbetynget hele tiden.

6. 0 Jeg har ikke følelsen av å bli straffet.
   1 Jeg føler at jeg kan bli straffet.
   2 Jeg forventer å bli straffet.
   3 Jeg føler at jeg blir straffet.

7. 0 Jeg føler meg ikke skuffet over meg selv.
   1 Jeg er skuffet over meg selv.
   2 Jeg avskyr meg selv.
   3 Jeg hater meg selv.

8. 0 Jeg føler ikke at jeg er noe dårligere enn andre.
   1 Jeg kritiserer meg selv for mine svakheter eller feilgrep.
   2 Jeg bebreider meg selv hele tiden for mine feil og mangler.
   3 Jeg gir meg selv skylden for alt galt som skjer.

9. 0 Jeg har ikke tanker om å ta livet mitt.
   1 Jeg har tanker om å ta livet mitt, men jeg vil ikke omsette dem i handling.
   2 Jeg ønsker å ta livet mitt.
   3 Jeg ville ta livet mitt om jeg fikk sjansen til det.

10. 0 Jeg gråter ikke mer enn vanlig.

1 Jeg gråter mer nå enn jeg gjorde før.
2 Jeg gråter hele tiden nå.
3 Jeg pleide å kunne gråte, men nå kan jeg ikke gråte selv om jeg gjerne vil.

11. 0 Jeg er ikke mer irritert nå enn ellers.
1 Jeg blir lettere ergerlig eller irritert enn før.
2 Jeg føler meg irritert hele tiden nå.
3 Jeg blir ikke irritert i det hele tatt over ting som pleide å irritere meg før.

12. 0 Jeg har ikke mistet interessen for andre mennesker.
1 Jeg er mindre interessert i andre mennesker enn jeg pleide å være.
2 Jeg har mistet det meste av min interesse for andre mennesker.
3 Jeg har mistet all interesse for andre mennesker.

13. 0 Jeg tar avgjørelser omtrent like lett som jeg alltid har gjort.
1 Jeg forsøker å utsette det å ta avgjørelser mer enn tidligere.
2 Jeg har større vanskeligheter med det å ta avgjørelser enn før.
3 Jeg klarer ikke å ta avgjørelser i det hele tatt lenger.

14. 0 Jeg føler ikke at jeg ser dårligere ut enn jeg pleide å gjøre
1 Jeg er bekymret for at jeg ser gammel eller lite tiltrekkende ut.
2 Jeg føler at det er varige forandringer i mitt utseende som får meg til å se lite tiltrekkende ut.
3 Jeg tror at jeg ser stygg ut.

15. 0 Jeg kan arbeide omtrent like godt som før.
1 Det kreves en ekstra anstrengelse For å ta fatt på noe.
2 Jeg må presse meg selv meget hardt for å gjøre noe.
3 Jeg klarer ikke å gjøre noe arbeid i det hele tatt.

16. 0 Jeg sover like godt som ellers.
1 Jeg sover ikke så godt som før.
2 Jeg våkner 1 - 2 timer tidligere enn ellers og har vanskelig for å sovne igjen.
3 Jeg våkner flere timer tidligere enn jeg pleide og får ikke sove igjen.

17. 0 Jeg blir ikke fortere trett enn ellers.
1 Jeg blir fortere trett enn før.
2 Nesten alt jeg gjør blir jeg trett av.
3 Jeg er for trett til å gjøre noe som helst.

18. 0 Matlysten min er ikke dårligere enn ellers.
1 Matlysten min er ikke så god som den var før.
2 Matlysten min er mye dårligere nå.
3 Jeg har ikke matlyst i det hele tatt lenger.

19. 0 Jeg har ikke gått ned meget i vekt, om idet hele tatt noe i den senere tid.
1 Jeg har tatt av mer enn 2 kg. Jeg prøver bevisst å gå ned i vekt
2 Jeg har tatt av mer enn 4 kg. ved å spise mindre. Ja ☐ Nei☐
3 Jeg har tatt av mer enn 6 kg.

20. 0 Jeg er ikke mer bekymret for helsen min enn vanlig.
1 Jeg er bekymret over fysiske plager som verking og smerter; eller urolig mage; eller forstoppelse.
2 Jeg er meget bekymret over mine fysiske plager og det er vanskelig å tenke på stort annet.
3 Jeg er så bekymret over mine fysiske plager at jeg ikke klarer å tenke på noe annet.

21. 0 Jeg har ikke merket noen forandring i mine seksuelle interesser i det siste.
1 Jeg er mindre interessert i sex enn jeg var før.
2 Jeg er mye mindre interessert i sex nå.
3 Jeg har helt mistet interessen for sex.

IIP64 Versjon C

Her er en liste med problemer som folk har i omgang med andre mennesker. Vennligst les hvert av disse og vurder om dette problemet har vært et problem for deg med hensyn til en eller annen betydningsfull person i ditt liv. Velg da det tallet som beskriver hvor plagsomt det problemet har vært, og sett en sirkel rundt dette tallet.

EKSEMPEL:

Hvor mye har du vært plaget av dette problemet?

Det er vanskelig for meg å komme overens med mine slektninger	ikke i det hele tatt	litt	moderat	ganske	veldig mye
	0	1	2	3	4

Del I. Det følgende er ting du synes er vanskelig å gjøre i forhold til andre mennesker.

Det er vanskelig for meg å:

		Ikke i det hele tatt	Litt	Moderat	Ganske mye	Veldig
1.	Stole på andre mennesker	0	1	2	3	4
2.	Si ”nei” til andre mennesker	0	1	2	3	4
3.	Delta i grupper	0	1	2	3	4
4.	Holde ting hemmelig for andre mennesker	0	1	2	3	4
5.	La andre mennesker få vite hva jeg har bruk for	0	1	2	3	4
6.	Be en person om å slutte å plage meg	0	1	2	3	4
7.	Presentere meg for nye mennesker	0	1	2	3	4

8.	Konfrontere folk med problemer som oppstår	0	1	2	3	4
9.	Hevde mine egne meninger overfor en annen person	0	1	2	3	4
10.	La andre mennesker få vite når jeg er sint	0	1	2	3	4
11.	Forplikte meg over lang tid i forhold til en annen person	0	1	2	3	4
12.	Være sjef over en annen person	0	1	2	3	4
13.	Være sint på andre når situasjonen gjør det nødvendig	0	1	2	3	4
14.	Omgås andre mennesker på en selskapelig måte	0	1	2	3	4
15.	Vise andre mennesker at jeg er glad i dem	0	1	2	3	4
16.	Komme overens med folk	0	1	2	3	4
17.	Forstå andres synspunkter	0	1	2	3	4
18.	Uttrykke mine følelser overfor andre direkte	0	1	2	3	4
19.	Være bestemt når jeg trenger å være det	0	1	2	3	4
20.	Oppleve kjærlighet i forhold til en annen person	0	1	2	3	4
21.	Sette grenser for andre	0	1	2	3	4
22.	Støtte en annen persons mål med livet	0	1	2	3	4
23.	Føle nærhet til andre	0	1	2	3	4
24.	Virkelig bry seg om problemer andre mennesker har	0	1	2	3	4
25.	Krangle med en annen person	0	1	2	3	4
26.	Tilbringe tid alene	0	1	2	3	4
27.	Gi en annen person en gave	0	1	2	3	4
28.	Tillate meg å føle sinne overfor noen jeg liker	0	1	2	3	4
29.	Sette en annens behov fremfor mine egne	0	1	2	3	4
30.	Ikke bry meg med andres saker	0	1	2	3	4
31.	Ta imot råd og ordre fra folk som har myndighet over meg	0	1	2	3	4
32.	Glede meg over et annet menneskes	0	1	2	3	4

	lykke					
33.	Be andre mennesker om å omgås meg sosialt	0	1	2	3	4
34.	Være sint på andre mennesker	0	1	2	3	4
35.	Åpne meg og snakke om følelsene mine til andre	0	1	2	3	4
36.	Tilgi en annen person etter at jeg har vært sint	0	1	2	3	4
37.	Ta hensyn til mitt eget beste når en annen blir krevende	0	1	2	3	4
38.	Si mine egne meninger uten å bekymre meg for at jeg sårer en annen persons følelser	0	1	2	3	4
39.	Være trygg på meg selv når jeg er sammen med andre mennesker	0	1	2	3	4

Del II. Følgende er ting du gjør mye:

		Ikke i det Hele tatt	litt	moderat	ganske	veldig mye
40.	Jeg krangler for mye med andre mennesker	0	1	2	3	4
41.	Jeg føler meg for ansvarlig for å løse andres problemer	0	1	2	3	4
42.	Jeg lar meg altfor lett overtale av andre	0	1	2	3	4
43.	Jeg er for åpen overfor andre mennesker	0	1	2	3	4
44.	Jeg er altfor selvstendig	0	1	2	3	4
45.	Jeg er altfor aggressiv i forhold til andre	0	1	2	3	4
46.	Jeg prøver for sterkt å tekkes andre mennesker	0	1	2	3	4
47.	Jeg klovner for mye	0	1	2	3	4
48.	Jeg ønsker for mye å bli lagt merke til	0	1	2	3	4
49.	Jeg stoler for mye på andre mennesker	0	1	2	3	4
50.	Jeg prøver for mye å kontrollere andre mennesker	0	1	2	3	4
51.	Jeg lar for ofte andres behov gå foran mine egne	0	1	2	3	4

52.	Jeg prøver altfor mye å forandre andre mennesker	0	1	2	3	4
53.	Jeg er for godtroende	0	1	2	3	4
54.	Jeg er overdrevent generøs overfor andre mennesker	0	1	2	3	4
55.	Jeg er for redd for andre mennesker	0	1	2	3	4
56.	Jeg er for mistenksom overfor andre mennesker	0	1	2	3	4
57.	Jeg manipulerer andre for mye for å oppnå det jeg vil	0	1	2	3	4
58.	Jeg forteller altfor lett personlige ting til andre	0	1	2	3	4
59.	Jeg er ofte uenig med andre	0	1	2	3	4
60.	Jeg holder andre altfor mye på avstand	0	1	2	3	4
61.	Jeg lar altfor lett andre mennesker utnytte meg	0	1	2	3	4
62.	Jeg føler meg for ofte flau overfor andre mennesker	0	1	2	3	4
63.	Jeg lar en annen persons elendighet for lett gå inn på meg	0	1	2	3	4
64.	Jeg ønsker for ofte hevn over andre	0	1	2	3	4

Rumination Scale

Mennesker tenker og gjør mange forskjellige ting når de føler seg deprimerte. Les over alle de utsagn som står nedenfor, og angi om du nesten aldri, noen ganger, ofte, eller nesten alltid tenker eller gjør dette når du føler deg nedtrykt, trist eller deprimert. Husk å angi hva du *vanligvis gjør*, og ikke hva du tenker du burde gjøre.

1=Nesten aldri 2= Noen ganger 3= Ofte 4 = Nesten alltid

1. Tenker på hvor ensom du føler deg
2. Tenker ”Jeg får ikke gjort jobben min dersom jeg ikke klarer å komme meg ut av dette”.
3. Tenker på dine følelser av utmattethet og smerte
4. Tenker på hvor vanskelig det er å konsentrere seg.
5. Tenker ”hva er det jeg gjør for å fortjene dette?”
6. Tenker på hvor passiv og umotivert du føler deg.
7. Analyserer nylige hendelser for å prøve å forstå hvorfor du er deprimert.
8. Tenker på hvorfor det virker som om du ikke føler noe lenger.
9. Tenker ”Hvorfor kommer jeg [meg] ikke i gang?”
10. Tenker ”Hvorfor reagerer jeg alltid på denne måten?”
11. Er for deg selv og tenker på hvorfor du føler som du gjør.
12. Skriver ned hva du tenker på og analyserer dette.
13. Tenker på en nylig situasjon og ønsker at det hadde gått bedre
14. Tenker ”Jeg kommer ikke til å kunne konsentrere meg hvis jeg fortsetter å føle meg på denne måten.
15. Tenker ”Hvorfor har jeg problemer andre mennesker ikke har?”
16. Tenker ”Hvorfor takler jeg ikke ting bedre?”
17. Tenker på hvor trist du føler deg.
18. Tenker på alle dine mangler, svakheter, feil
19. Tenker på hvorfor du ikke føler deg i stand til å gjøre noen ting.
20. Analyserer personligheten din for å prøve å forstå hvorfor du er deprimert.
21. Drar et sted alene for å tenke over dine følelser
22. Tenker på hvor sint du er på deg selv