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## **Chapter 7.**

### **Changes in implicit God representations after psychotherapy for patients diagnosed with a personality disorder. Associations with changes in explicit God representations, distress and object-relational functioning**

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## Abstract

Research has demonstrated that maladaptive relational functioning of patients suffering from personality disorders is associated with more negative God representations. This study demonstrated with a single group design among a group of 37 Christian patients with personality disorders, that changes in implicit God representations during psychotherapy, as assessed with the recently developed implicit Apperception Test God Representations (ATGR), were associated with changes in explicit God representations and object-relational functioning, but not in distress. Changes in explicit distress were associated with changes in explicit God representations. Results of cross-lagged analyses suggested that object-relational functioning affected God representations more than vice versa.

## Introduction

For adherents of theistic religions, the personally experienced, affect-laden relationship with the divine being can be considered an important factor that is related to well-being. It should be distinguished from a more rational and doctrinal view of God (Davis, Granqvist, & Sharp, 2018). However, scholars vary considerably in the terms they use to refer to both kinds of descriptions of how God is viewed. They use terms as God representations, God images, God attachments, and God concepts. In this article, we use the term God representations to refer to someone's personally experienced, affect-laden relationship with God.

The Apperception Test God Representations (ATGR) is a measure that has been developed to assess implicit aspects of God representations (Stulp, Glas, & Eurelings-Bontekoe, 2020; Stulp, Koelen, Glas, & Eurelings-Bontekoe, 2019a) due to the well-known problems with self-report measures, such as social desirability and doctrine effects (Gibson, 2008; Zahl & Gibson, 2012). Moreover, object relations theory and attachment theory (two important theoretical frameworks for research into God representations) assume that personal God representations, similar to mental representations of interactions with people, act on a mostly implicit level (Brokaw & Edwards, 1994; Granqvist, 1998; Granqvist, Ivarsson, Broberg, & Hagekull, 2007; Jones, 2008; Kirkpatrick & Shaver, 1990; Kirkpatrick & Shaver, 1992; Rizzuto, 1979). Some scholars express the conviction that advances in this field can only be made by developing more sophisticated measurement methods (Hall & Fujikawa, 2013) and by applying mixed-method designs that combine self-report and implicit measures of God representations (Olson et al., 2016).

## 7. Changes in God representations, object-relational functioning and distress

In this vein, we applied a mixed-methods design and examined aspects of the reliability and construct validity of the ATGR in three former studies (Stulp, Koelen, et al., 2019a; Stulp, Koelen, Glas, & Eurelings-Bontekoe, 2019b; Stulp, Koelen, Schep-Akkerman, Glas, & Eurelings-Bontekoe, 2019). Taken together, these studies demonstrated that for patients suffering from personality disorders the ATGR showed theoretically predicted patterns of associations with self-reported and implicit measures of distress, and with implicit and explicit measures of object-relational functioning. These results provided preliminary evidence of the validity of the ATGR scales. The current study is a sequel to those studies and aims at examining the longitudinal construct validity (Liang, 2000) of the ATGR by examining whether changes in scores on ATGR scales are associated with changes in distress and with changes in object-relational functioning during psychological treatment for Christian patients with personality disorders. The rationale for the focus on a psychotherapy group for Christian patients with personality disorders is twofold: (a) it is important that measures are validated in groups for which their assessment is most relevant, such as for patients with personality disorders, given their more pronounced negative God representations (Schaap-Jonker, Eurelings-Bontekoe, Verhagen, & Zock, 2002; Stulp, Koelen, et al., 2019a); and (b) we expect that this particular group is likely to show changes in God representations during psychotherapy that focuses on relevant topics. This enables us to study the sensitivity for change of the ATGR.

### God Representations and Personality Pathology

A core aspect of personality pathology is aberrant relational functioning and problematic views of self and of others (Berghuis, Kamphuis, & Verheul, 2012; Livesley, 1998). Meta-analytic results revealed that these core concepts of personality disorder are in fact associated with personal God representations (Stulp, Koelen, Schep-Akkerman, et al., 2019). This is also demonstrated by the scarce research into the associations between God representations and personality pathology (Schaap-Jonker et al., 2002; Schaap-Jonker, van der Velde, Eurelings-Bontekoe, & Corveleyn, 2017). In further support of this association, in our research aimed to validate the Apperception Test God Representations in a nonclinical sample and a clinical sample of patients diagnosed with a personality disorder, we also found significantly more negative God representations among patients than among nonpatients. Moreover, patients' negative God representations were associated significantly and positively with distress (Stulp, Koelen, et al., 2019a); and negatively with level of implicitly measured object-relational functioning (Stulp et al., 2020) and with core elements of personality functioning such as identity integration, relational capacities, and self-control (Stulp, Koelen, et al., 2019b). In sum, although only a limited amount of studies is currently available,

these studies seem to support the notion that God representations are related to the pathology of people with personality disorders.

### **Theoretical Explanation for the Associations Between God Representations and Personality Pathology**

The above-mentioned research findings seem to support a theoretical explanation for these associations as offered by object relations theory. The development of mental representations during (early) life is described by psychodynamic object relations theory (Fairbairn, 1954; Kernberg, 1988; Mahler, 1971). Early experiences lead to mostly implicit internal working models, which comprise representations of self and others, as well as their affective quality. More pathological internal working models involve less integrated representations of self and others. On the lowest levels of object-relational functioning, persons have difficulty in differentiating between the self and others, and in integrating positive and negative feelings about self or others. This often leads to emotional instability based on the use of primitive defense mechanisms like splitting (the tendency to see others in black-and-white terms such as good and bad/evil). On lower levels, others are also viewed as less benevolent (affectionate, benevolent, warm, constructive involvement, positive ideal, nurturant) and more punitive (judgmental, punitive, and ambivalent) than on higher levels (Huprich, Auerbach, Porcerelli, & Bupp, 2015; Kernberg & Caligor, 1996). Many scholars in the domain of religion assume that God representations, just like representations of people, are formed on the basis of early experiences with caregivers, and that the development of God representations parallels the development of internal working models of the self and others (Brokaw & Edwards, 1994; Granqvist, 1998; Kirkpatrick, 1998; Kirkpatrick & Shaver, 1990; Rizzuto, 1979). There is growing evidence for this parallel, as summarized in a meta-analysis about associations between God representations and views of self and others (Stulp, Koelen, Schep-Akkerman, et al., 2019).

This meta-analysis also emphasizes the importance of God representations for daily functioning by demonstrating that positive God representations are relatively strongly associated with well-being, and negative God representations with distress. Positive God representations are thought to have an intrinsic value, directly fostering well-being, as well as having indirect effects on well-being by providing a “meaning-making framework”, by fostering feelings of being loved, protected, and by buffering negative influences of stressors (Ellison & Levin, 1998; Koenig, King, & Carson, 2012; Pargament, 2001; Park, 2005). Negative God representations may for persons suffering from personality disorders obstruct these positive effects on well-being and may even add distress to the patient (Abu-Raiya, Pargament, & Krause, 2016; Ano & Pargament, 2013; Exline, Grubbs, &

Homolka, 2015). Therefore, in this study we will focus on both distress and object-relational functioning with respect to changes in God representations.

### Change of Representations

Interpersonal representations are supposed to have a certain temporal stability (Bretherton, 1985; Collins & Feeney, 2004; Fraley, 2002), especially when strongly negative representations, based on negative life circumstances as abuse or neglect, have been developed early in life (Bateman & Fonagy, 2008, 2010). Change of negative representations of self and others, for instance with schema therapy, is an important focus in therapy for patients with personality disorders (Giesen-Bloo et al., 2006; Jacob & Arntz, 2013). Theoretically and developmentally, one may expect that changes in these representations of self and others may also affect God representations: views of God and of the self in relationship with God. The other way around, a change of God representations may also strengthen personal identity and have its effects on interpersonal representations. We assume that the association between changes in God representations and changes in representations of interpersonal relationships is bi-directional, with a predominance of interpersonal representations influencing God representations, even though there is little research to support this assumption.

### Research into Changes in God Representations, Distress and Object-Relational Functioning

There is little research into changes in God representations after treatment. None of these studies especially concern patients with personality disorders. We summarize the evidence of treatment studies reporting (a) changes in God representations only, (b) changes in God representations and in well-being/distress, and (c) changes in God representations and object-relational functioning. Although all described God representation measures refer to the personally experienced, affect-laden relationship with God, scholars, as already mentioned, use various terms. In reporting the study results, we followed the concepts the authors used.

**Changes in God representations only.** Two studies reported positive changes in God representations. Mohammadi, Salmaniam, Ghobari-Bonab, and Bolhari, in a pilot with six adolescents with conduct disorders, examined if a manual-guided spiritual psychotherapy program, based on object-relation and attachment theory, had effect on attachment-to-God representations. For five participants, the avoidant attachment to God score nearly significantly decreased from start to end of the program (Cohen's  $d = 0.51$ ). Thomas, Moriarty, Davis, and Anderson (2011) examined the effects of an 8-week, manualized, outpatient

group-psychotherapy intervention on God images and attachment to God of 26 Christian adults who experienced difficulties in their relationship with God because of negative God images. They reported significant positive changes in God images and in attachment to God. Patients also reported experiencing more congruence between affective and doctrinal representations of God after treatment than at the start of treatment.

Three studies could not report changes in God representations. Rasar, Garzon, Volk, O'Hare, and Moriarty (2013), using the same treatment manual as Thomas et al. (2011), found no significant changes in attachment to God, God image and religious coping in the treatment group of 11 persons. Snow (2010) found that a specific religious group intervention in a group of 100 college students did not lead to significantly increased feelings of intimacy with God or to a significantly decreased angry attitude toward God. Olson et al. (2016) examined in a sample of 32 Christian students the effects of a controlled, manualized 10-week group based intervention on God representations, compared to a matched control group of 29 Christian students. The interventions were based on Hall's relational spirituality theory (Hall, 2004) and McAdams's (2008) narrative identity framework. No significant changes in implicitly and explicitly measured God representations and in explicitly measured attachment to God were found.

**Changes in God representations and well-being/distress.** Of particular interest to our study is that two studies demonstrated significant changes in God representations as well as significant associations between changes in God representations and well-being/distress. Cheston, Piedmont, Eanes, and Lavin (2003), for example, found significant changes in God representations in a group of 30 patients after 6 months of psychotherapy, during which no special attention was given to religion, whereas these changes did not occur in a control group of 68 respondents. Changes in perceptions of God were highly significantly associated with changes in counselor ratings of symptoms,  $r = .54$ ,  $p < .01$ .

Monroe and Jankowski (2016), in a sample of 43 Christian adults of which 81% indicated a history of trauma, found a significant increase in attachment to God, Cohen's  $d_{av} = 1.27$ , and a significant decrease in avoidant attachment to God, Cohen's  $d = 1.55$ , after a contemplative practice of receptive prayer. The changes in attachment to God significantly predicted changes in depression, anxiety and positive affect. Four studies reported positive changes in God representations and in well-being or distress without conducting tests for the associations between them. Currier et al. (2017) examined changes in God representations of 214 Christian patients over the course of an inpatient spiritually integrative treatment program with an average length of seven days. Most patients were diagnosed with a unipolar or bipolar depression and/or an anxiety disorder and/or an alcohol- or drug-related disorder. Their God representations were assessed with an open-

ended question: ‘When God looks at you, how would God describe you?’ Answers were analyzed with a standardized method to categorize linguistic responses. Compared to baseline narratives, patients reported significantly less negative God representations at discharge, with a medium effect size (Cohen’s  $d = -0.43$ ), and showed significant improvements, with medium to large effect sizes, in religious comforts/strains and positive/negative affect (Cohen’s  $d$ ’s of respectively 0.67 and -0.92). Kerlin (2017) found a significant decrease in anxious and avoidant attachment to God, with large effect sizes (Cohen’s  $d$ ’s of respectively 1.47 and 0.89), and a large effect size regarding an increase in mental health, with Cohen’s  $d = 1.58$ , for a Christian recovery program for 30 patients suffering from a substance abuse disorder. In a small, yet relevant study, Murray-Swank (2003) examined the effects of an 8-session spiritual integrative program for survivors of sexual abuse on the psychological and spiritual health of five female survivors. Four of the five participants showed significant reductions in psychological distress, two participants had more positive God images, and one participant had a less negative God image. In a qualitative study, Kim, Chen, and Brachfeld (2018) examined nine patients of a Christian outpatient clinic who struggled with a personal crisis. According to the authors, results suggested that all patients needed to restructure their image of God before being able to engage in a safe relationship with God. All respondents reported as benefits of this renewed relationship an alleviation of symptoms.

### **Changes in God representations and object-relational functioning.**

Three studies reported positive changes in God representations and in viewing self or others. Tisdale, Key, Edwards, and Brokaw (1997) found that among a group of 99 religious patients who followed an inpatient treatment program based on a religious as well as an object-relational framework, and were diagnosed with a major depressive disorder, God was seen as more close, loving, present and accepting at discharge, and also six months and a year after treatment, than at the start of therapy (with small to medium effect sizes of  $d = 0.29 - 0.47$ ). Patients also viewed themselves as more positive (with a large effect size of 0.79 for this change). Moreover, God representation measures correlated significantly with personal adjustment and object-relations measures at the various assessment moments. Stalsett, Engedal, and Austad (2010) reported a case study about the treatment of a severely depressed patient with a diagnosis of Borderline and Paranoid Personality Disorders, with narcissistic traits. The treatment was based solely on psychological interventions. The transformation of the patient’s negative God representation to a more affirmative one was viewed by the authors as crucial therapeutic work to achieve more healthy functioning. Kim et al. (2018), reported — besides the above already mentioned results for God representations and

distress— an enhanced sense of self-worth and self-confidence, and enhancement in relationship with others for all respondents.

In summary, the available evidence suggests that for people suffering from religious or psychological distress, God representations often change after therapeutic, nonreligious or religious interventions or a combination of them. In terms of effect sizes, there is quite a large variety in the magnitude of these changes (small to very large), which may in part be due to different measures of this rather abstract concept. Results also suggest that these changes are accompanied by changes in well-being/distress and in object-relational functioning. These changes are often large in terms of effect sizes. Because almost all evidence is based on self-report measures or interviews, the results may be biased by social desirability and doctrine effects. Only two of the discussed studies (Currier et al., 2017; Olson et al., 2016) used an implicit or indirect measure for assessing God representations, with mixed results.

### **Aim of the Current Study**

The main aim of the current study is the further validation of the ATGR. The study is conducted among patients suffering from personality disorders who receive psychotherapy. We expect (positive) changes in implicitly measured God representations between the start and the end of treatment. We also expect that these changes will be related to changes during treatment in explicit God representations, in object-relational functioning and in distress. This would not only corroborate the validity of the ATGR, but it would also be important for its potential clinical implications. Therapists might for example find new ways of fostering well-being of their patients by focusing on changes in God representations as well as on changes in object-relational functioning.

Because of the often questioned validity of explicit measures, it will also be explored whether changes in implicitly measured God representations are more strongly associated with implicitly measured distress, measured with the implicit OQ clinician scales, than with explicitly measured distress, measured with the self-report OQ scales. Initially this was one of the expectations of our research project, based on the assumption that patients (more than non-patients) —as a consequence of their pathology— would show clear discrepancies between implicit and explicit measures of the various study variables. However, at the first assessment implicit God representations of the patients were associated more strongly with explicitly than with implicitly measured distress (Stulp, Koelen, et al., 2019a). Because our assumption seemed to have been proven wrong, we dropped our initial expectation for this study. (Stulp, Koelen, et al., 2019a) Finally, because at the first assessment various implicit God representations were significantly associated with various explicit God representations scales, we also examined whether changes in

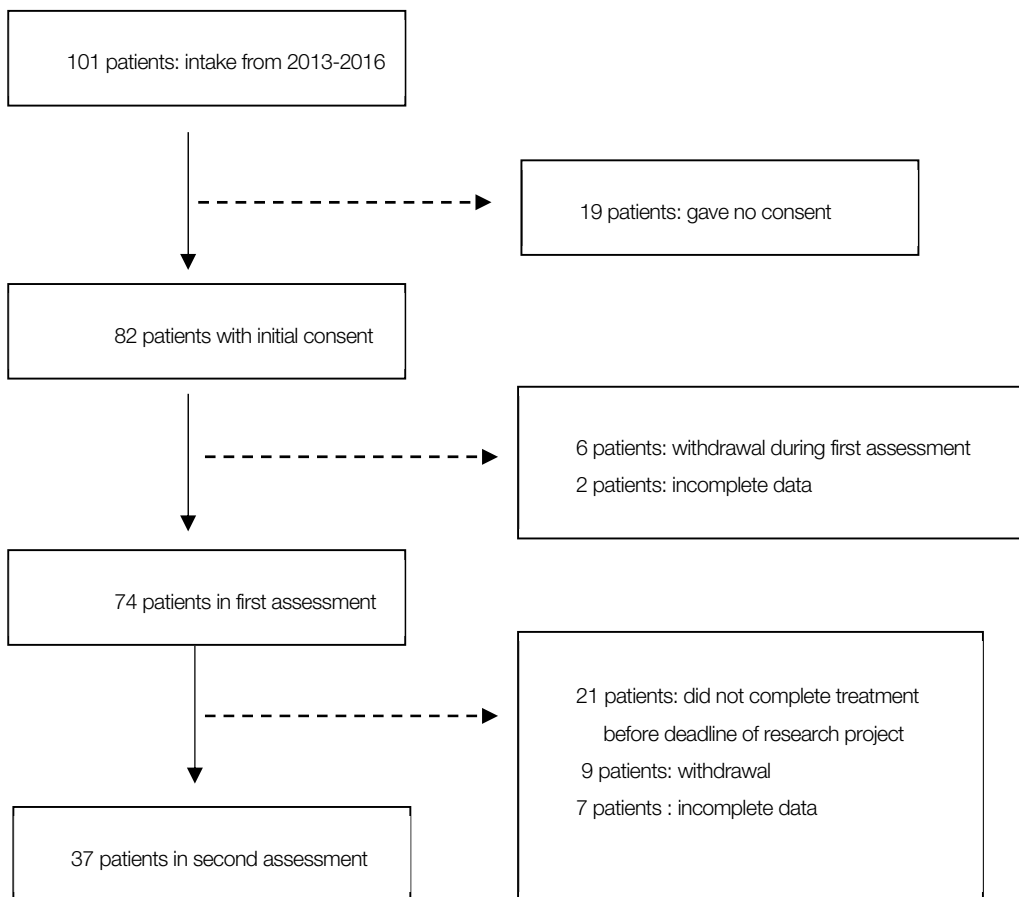
those two types of measures would be associated. To our knowledge, this is the first study that examines associations between changes in implicit God representations and changes in distress and object-relational functioning. It is also the first study to examine changes in implicit God representations among a therapy group of patients suffering from personality disorders.

## Method

### Sample Characteristics

This study was conducted with 37 patients who completed an inpatient or day program treatment at a treatment center for persons with personality pathology. The center is part of a Christian mental health institution in the Netherlands. At its core, this institution aims at the integration of spirituality and psychological functioning, based on the conviction that these two aspects of human existence are inextricably intertwined. Patients receive inpatient treatment or day treatment, which implies Schema Focused Therapy, Mentalization Based Therapy or Cognitive Behavioral Therapy. The treatment programs have a length of 9 to 12 months. At the start of treatment, results of the explicit God representations assessment are discussed with patients. During treatment, the subject faith is often brought up. In all groups, every nine weeks the theme is faith; various meanings of faith are explored and discussed, and various religious interventions are offered to foster positive, helpful religious experiences, with e.g. the use of music, imagination, or other methods that are in line with schema therapy. At evaluations, the question how the patients experience their faith in relation to treatment, is also explicitly asked. The ethical committee of the institution approved of the current study, and the medical committee of the Free University of Amsterdam decided that the study did not fall under the Medical Research on Human Subjects Act.

The data were gathered between 2013 and 2016. Eighty-two out of approximately 100 patients initially consented, of which six dropped out during the first assessment at the start of their treatment program, and two patients were excluded because of incomplete data. Due to the deadline of this research project, only 53 patients of this remaining group of 74 patients (72%) were approached for the second assessment. Nine of them decided not to participate or did not respond to the invitation. Of the remaining 44 patients, seven were excluded because of incomplete data, leaving a sample of 37 patients with complete data of the first and second assessment. Twenty-six patients received inpatient treatment, 11 patients received part-time day treatment with Schema Focused therapy. Patients who dropped out did not differ from patients who did not drop out on any of the key variables of this study: scales of the ATGR, QGR, BORI, SCORS, OQ and OQ clinician, religious salience.



*Figure 1:* Flow chart of patient inclusion

## 7. Changes in God representations, object-relational functioning and distress

Table 1. *Object-Relation and Social Cognition Theory Informed ATGR Scales*

	Level 1: very immature	Level 2	Level 3	Level 4	Level 5: very mature
Complexity of representation of God	Poor differentiation between thoughts / feeling of the character and of God	Poor understanding of God: vague, confused, incoherent, fluctuating or unintegrated representations	Superficial understanding: unidimensional, unelaborated descriptions of God's characteristics, thoughts or feelings	Acknowledgement of God's complexity; detailed descriptions, differentiated, ambiguous. Stability of God's characteristics over time/situations	Understanding of complexity/ ambiguity, relating it to general characteristics of God
Affect tone of relationship with God (character and person)	Representations of God are malevolent, causing great distress or helplessness	Representations of God as hostile or disengaged, or defensively positive	Affective relationship with God with predominantly negative feelings	Relationship with God is affectively neutral or characterized by mixed feelings	Relationship with God is experienced with predominantly positive feelings
Emotional investment into relationship with God	No relationship with God or selfish relationship, only for own gratification	Superficial relationship, probably enduring, but need gratification prevails	Conventional relationship with God with some emotional investment, driven by wish for acceptance, pleasing God	Dedicated relationship with God, emotional investment based on principles, inner convictions	Deep, dedicated relationship with God for the sake of the relationship itself. Awareness of reciprocity.
Agency of God	God has no influence on situations or on character's reactions	God has influence on situations or joint divine and personal influence on the character's reactions. No explanation for God's action is given.	God has influence on situations or shared influence on the character's reactions, with general explanations given for it. Or God has absolute influence on reactions, but no explanation is given for it.	God has influence on situations or shared influence on character's reactions, with general explanations given for it. Or God has absolute influence on reactions, but only a general explanation is given for it.	God has total influence on character's reactions, and a specific explanation is given for it.

## Measures

### **Apperception Test God Representations (ATGR).**

**Materials and assessment procedure.** Implicit aspects of God representations were measured by the newly developed ATGR (Stulp, Koelen, et al., 2019a), an apperceptive test of 15 cards with pictures especially developed for this purpose. Resulting narratives were analyzed by the SCORS scoring system, especially adapted for measuring God representations in narratives. The scoring scales are shown in Table 1.

The scale Affect Tone of relationship with God is scored in two ways: for character and respondent (Affect Tone character and Affect Tone person). The first regards the way the (main) character in the narrative experiences his or her relationship with God (Affect Tone character), the second regards the way the respondent may consciously elaborate on this experience (Affect Tone person). Although in the scoring of the TAT this distinction is not made, the distinction seems relevant when assessing God representations (instead of human objects) because we assume that respondents' explicit ideas about their relationship with God (Affect tone person) might be more susceptible to doctrine and social desirability than respondents' descriptions of the relationship with God of the character in the narrative (Affect tone character). Indeed, we found that attributions of characters' thoughts and feelings about God assess respondents' implicit God representations, and their own comments on these attributions (Affect Tone person) express their more explicit God representations (Stulp, Koelen, et al., 2019b).

**Coding procedure.** Scoring the ATGR protocols of the first assessment (which also included a nonpatient group) took place by 19 students in 11 couples. For the second assessment (only the clinical group) four students in two couples scored the ATGR. Each student first independently scored protocols, then compared the scores with the other student of the couple, and discussed all different scores to achieve consensus. Coders followed an intense training program, given by the first author, who is an experienced psychologist with much experience with apperceptive and projective tests. For each scale at least 15 hours of training were spent: three joint sessions of three hours and six hours of individual scoring at home.

**Interrater reliability.** For the first assessment, according to Cicchetti (1994) the weighted average interrater reliability scores (Intra Class Correlation Coefficients, based on absolute agreement) of the ATGR scales were good for the scales Affect Tone character, Affect Tone person and Agency, fair for the Complexity scale, and poor for the Investment scale (.68). For the second assessment, the reliability of the ATGR scales were good. Table 2 shows the reliability coefficients of all the variables of the study.

## 7. Changes in God representations, object-relational functioning and distress

Table 2. *Reliability of the Scales of all Study Variables*

Measures	Scales	Reliability	
		1 <sup>st</sup> assessment	2 <sup>nd</sup> assessment
ATGR	Complexity	.77	.85
	Affect Tone (character)	.80	.89
	Affect tone (person)	.83	.85
	Investment	.68	.89
	Agency	.85	.88
QGR	Positive feelings	.94	.92
	Anxiety	.91	.91
	Anger	.83	.76
	Supportive actions	.94	.93
	Ruling/punishing	.70	.68
	Passivity	.82	.85
OQ	Symptom Distress	.88	.94
	Interpersonal Relationships	.67	.86
	Social Role Performance	.61	.54
	Anxiety and Somatic Distress	.85	.86
	Total	.88	.94
	Symptom Distress	.90	.88
OQ-client	Interpersonal Relationships	.76	.75
	Social Role Performance	.78	.65
	Anxiety and Somatic Distress	.84	.82
	Total	.94	.90
BORI	Alienation	.75	.84
	Insecure Attachment	.51	.68
	Egocentricity	.66	.69
	Social Inadequacy	.51	.68

**Questionnaire God Representations.** The Dutch Questionnaire God Representations (QGR), in earlier publications also referred to as Questionnaire God Image (QGI), is a 33-item self-report questionnaire with two dimensions; the dimension “feelings toward God”, with three scales: Positive feelings toward God (Positive/POS), Anxiety toward God (Anxiety/ANX), and Anger toward God (Anger/ANG); and the dimension “God’s actions”, with three scales: Supportive actions (Support/SUP), Ruling and/or Punishing Actions (Ruling-Punishing/RULP), and Passivity of God (Passivity/Passivity). All items are scored on a five-point scale, with (1) for not at all applicable, and (5) for completely applicable. The scale has good psychometric properties. The internal consistency of the scales is sufficient, with Cronbach’s alpha’s ranging from 0.71 for Passivity of God, to 0.94 for Positive feelings toward God (Schaap-Jonker & Eurelings-Bontekoe, 2009). Validity was confirmed by more unfavorable scores for mental health patients and by associations with religious salience, church attendance and religious denomination (Schaap-Jonker & Eurelings-Bontekoe, 2009).

In this study in the first assessment three scales scored excellent on internal consistency, as indicated by Cronbach's alpha, two scales scored good, and one scale scored fair. In the second assessment the reliability of one scale (Ruling/punishing) dropped from fair to poor. (See also Table 2).

**Outcome Questionnaire OQ-45, patient and clinician.** The OQ-45, (Lambert et al., 1996) is an American instrument to measure clinical outcomes, translated and adapted for a Dutch population by (De Jong et al., 2007). The Dutch version consists of four scales: Symptom Distress (SD), Interpersonal Relations (IR), Social Role Performance (SR), and Anxiety and Somatic Distress (ASD). The latter scale is a subscale that consists almost exclusively of SD-items, and is added to the Dutch version on the base of the results of factor analysis. Internal consistency of the scales was good for SD (0.89 to 0.91), for ASD (0.70 to 0.84), and for IR (0.74 to 0.80), and moderate for SR (0.53 in a community sample; 0.69 in a clinical sample). Scores on all scales were significantly higher for the clinical than for the normal population. Concurrent validity was sufficient, as shown by significant relations with subscales of the Symptom Checklist 90-items version, SCL-90; (Arrindell & Ettema, 1986), the Depression Anxiety and Stress Scales, DASS; (de Beurs, Van Dyck, Marquenie, Lange, & Blonk, 2001), and the Groningse Vragenlijst Sociaal Gedrag (Groningen Questionnaire of Social Behavior) 45-item version, GVSG-45; (De Jong & Van Der Lubbe, 2001).

In the current study, in the first assessment the internal consistencies of three OQ-scales, based on Cronbach's alpha, were good; two scales showed poor internal consistency. In the second assessment, internal consistencies of two scales were excellent, two scales had good internal consistencies, and internal consistency of one scale was poor. (See also Table 2).

To obtain also an indirect measure of distress, for the clinical sample we asked the clinician to fill in an adapted version of the OQ-45 Questionnaire, estimating the functioning of the patient on the various domains. For the first assessment this was done within the first three weeks after the start of treatment. The internal consistencies of two scales were excellent, one scale showed good internal consistency and internal consistency of two scales was fair. For the second assessment, done by the clinicians at the end of the treatment program of their clients, the internal consistency was excellent for one scale, it was good for two scales, fair for one scale and poor for one scale. (See also Table 2).

**Bell Object Relations Inventory (BORI).** Explicit object-relational functioning was assessed by The Bell Object Relations Inventory (BORI, Bell, 1995), a self-report true/false questionnaire with 45 items. It consists of four scales, assessing aspects of object-relational functioning: Alienation (ALN), Insecure Attachment (IA), Egocentricity (EGC), and Social Incompetence (SI). Psychometric characteristics of the instrument are good, with Cronbach's alpha's for ALN  $\alpha = .90$ , for IA  $\alpha = .78$ ,

for EGC  $\alpha = .78$  and for SI  $\alpha = .79$  (Bell, 1995). High ALN scores indicate a basic lack of trust in relationships, a suspicious attitude and a tendency to social isolation. High scores are virtually never found in high functioning subjects (Bell, 1995). High IA scores indicate a high sensitivity to rejection, a tendency to long desperately for closeness, and poor toleration of separations, losses and loneliness. High functioning subjects may have elevated scores on this scale. High EGC scores indicate a tendency to perceive the existence of others only in relation to oneself, and a sense that others are to be manipulated for own self-centered aims. High SI scores indicate shyness, nervousness, and difficulties in making friends and in socializing. The construct validity of the scales has been established in many studies across various populations. For an overview, see Li and Bell (2008). Relevant for the current study is that the instrument distinguishes between non-clinical subjects and persons suffering from borderline and other personality disorders (Bell, Billington, Cicchetti, & Gibbons, 1988; Tramantano, Javier, & Colon, 2003) and that its scores are related to the extent of religious maturity (Hall, Brokaw, Edwards, & Pike, 1998). At first assessment, internal consistency of the scales, as indicated by Cronbach's alpha and computed for both groups together, was fair for one scale and poor for three scales. This was also the case for the reliabilities in the second assessment (see also Table 2).

**Religious salience.** Religious salience was assessed by means of the sum score of five items with a five-point Likert scale regarding five question about how important the participants' faith or life philosophy is in their own life. Cronbach's alpha in this study was 0.86, which is good.

### Data Analysis

Main analyses were conducted on the OQ-total score and on aggregated total scores for the ATGR, QGR and BORI scales. For the ATGR, QGR, and BORI scales, according to the guidelines of Beurs, Flens, and Williams (2019); de Beurs et al. (2016), we converted all scores to T-scores, based on the mean and distribution of scores of the nonpatient group of our research project (Stulp et al., 2020; Stulp, Koelen, et al., 2019a).

To determine whether a change in scores was reliable and clinically significant, 95% reliability intervals for the changes were determined, based on the reliability of the measure in the first assessment and on the mean and distribution of scores of this patient group and a comparison group of non-patients (Stulp, Koelen, et al., 2019a). Cut-off points and reliable change indexes for the separate and the aggregated scales were determined, based on the formulas of Jacobson and Truax (1991). The reliable change indexes of the ATGR scales were based on the Intra-Class Correlation Coefficients of the first assessment. The reliable change indexes of the BORI scales were based on the Cronbach's alpha's reported in the manual (Bell, 1995). The reliable change indexes were also used to determine the width of the band of uncertainty

around the clinical significance cutoff score. For patients with scores that fell within this band, their status after treatment could not be determined with 95% certainty and is therefore labeled 'uncertain'. For the OQ clinician scales, reliable change indexes and clinical significance could not be established because there were no data for a functional group to compare scores with.

Paired samples *t* tests were applied to examine if -on group level- mean scores of first and second assessment significantly differed. Effect sizes were calculated using Cohen's *d*, ( $t/\sqrt{N}$ ), applying his rule of thumb that *d*'s of 0.20 are small, 0.50 medium and 0.80 large.

Next, we reported for each scale the percentages of patients that could be classified as recovered, improved, unchanged, deteriorated, or uncertain. For the self-report OQ scales, scores of the first and second assessment were compared with the cut-off values and the reliable change indexes for each scale for the Dutch version of the OQ (De Jong et al., 2007), to determine the percentage of scores in the dysfunctional (clinical) range, and whether a change exceeded the number of points a patient should improve to consider it a reliable improvement.

On the aggregated scales two-wave two-variables (2W2V) cross-lagged regression analyses (Rogosa, 1980) were conducted to examine the changes on the scales and their associations, and to get indications for the causal predominance of the changes. Two-step hierarchical regression analyses were applied as described by Dalecki and Willits (1991). Basic assumptions of regression analyses were checked. To examine whether changes on the God representation scores were associated with religious salience as a potential confounder, we conducted another series of two-step hierarchical regression analyses.

## Results

### Changes in Distress, God Representations and Object-Relational Functioning

Paired samples *t* tests showed that patients scored significantly lower at the end of the treatment program than at the start on the OQ-total scale,  $t(36) = 3.299$ ,  $p = .002$ , and on the OQ-clinician scale,  $t(36) = 4.786$ ,  $p = <.001$ , indicating diminished distress. The effect sizes of these changes were respectively medium ( $d = 0.54$ ) and nearly large ( $d = 0.79$ ). No significant differences were found on the BORI total scale,  $t(36) = 1.685$ ,  $p = .101$ , on the ATGR total scale,  $t(36) = -.956$ ,  $p = .346$ , and on the QGR total scale,  $t(36) = -1.406$ ,  $p = .168$ . See also Table 3.

7. Changes in God representations, object-relational functioning and distress

Table 3. Differences Between Mean Scores on Aggregated Scales

Aggregated Scales	Mean t1	Mean t2	Sd t1	Sd t2	r	t1-t2	Sig.	Paired samples t test				
								Mean	Sd	t	df	Sig.
OQ	95.57	85.76	17.10	25.35	.70	.000		9.81	18.09	<b>3.299</b>	36	.002
OQcl	96.75	81.35	20.39	16.81	.46	.004		15.41	19.58	<b>4.786</b>	36	.000
BORI	71.58	68.91	11.54	13.26	.70	.000		2.68	9.67	1.685	36	.101
ATGR	42.86	44.33	8.66	8.69	.42	.010		-1.47	9.37	-0.956	36	.346
QGR	40.08	41.61	7.66	6.86	.59	.000		-1.53	6.61	-1.406	36	.168

Note. OQcl = OQ clinician. Bold values are significant at the  $p = .01$  level

Paired samples t tests showed highly significant changes on one of the five ATGR main scales, namely on Affect Tone person. The effect size of this change, based on Cohen's d, was large, namely -1.00 (see Table 4).

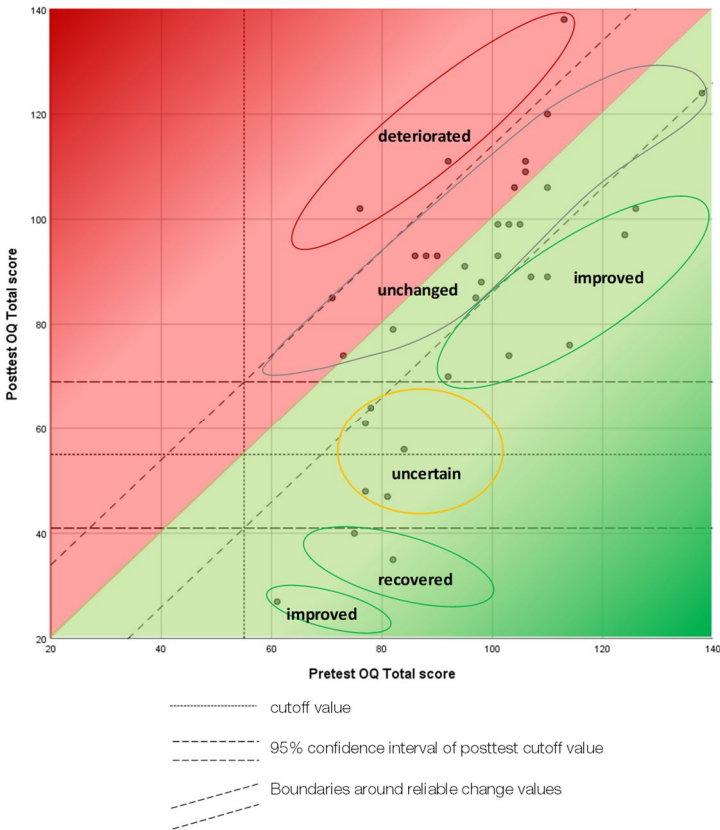


Figure 2. Reliable Change and Clinical Significance of OQ Total scores

Table 4. *Differences Between Scores on t1 and t2 for the ATGR Scales*

ATGR scale	First Assessment (t1)		Second Assessment (t2)		Associations t1 with (t2-t1)		Paired samples <i>t</i> tests							
	M	sd	M	sd	<i>r</i>	<i>p</i>	M	sd	CI 95%		<i>t</i>	<i>df</i>	<i>p</i>	Cohen's <i>d</i>
									Lower	Upper				
Complexity	3.19	0.41	3.05	0.46	-.57**	.000	0.14	0.54	-0.04	0.32	1.57	36	.125	0.26
Affect tone character	3.61	0.29	3.58	0.31	-.50*	.002	0.03	0.32	-0.77	0.14	0.59	36	.562	<b>0.10</b>
Affect Tone person	3.84	0.50	4.23	0.36	-.71**	.000	-0.39	0.39	-0.53	-0.26	<b>-6.09**</b>	36	<.001	<b>-1.00</b>
Investment	2.92	0.28	2.92	0.24	-.31	.067	0.00	0.34	-0.12	0.11	0.08	36	.938	0.01
Agency	2.22	0.72	2.42	0.71	-.59**	.000	-0.20	0.83	-0.48	0.07	-1.50	36	.142	-0.25

NOTE. \* =  $p < .01$ ; \*\* =  $p < .001$ Table 5. *Classifications of Patients After Treatment on the Study Variables*

	recovered	improved	Unchanged	deteriorated	uncertain
OQ-Total	5%	22%	51%	8%	14%
OQcl-Total	0%	43%	35%	3%	19%
ATGR-Total	0%	8%	51%	16%	24%
QGR-Total	3%	5%	38%	11%	43%
BORI-Total	3%	0%	51%	8%	38%

Whether or not the mean scale scores are improved is not very relevant for the validity of the scales; it is background information that gives some indication about the general efficacy of the treatment program. More relevant for the validity are changes on an individual level; are there individual differences in changes in God representations, and are they related to changes in distress and object-relational functioning? In Figure 2 the changes on explicit distress are plotted, and the figure also shows how the distribution of patients on the various categories (improved, deteriorated, etc.) was determined. The data of Table 5 and Table 6 are derived from these type of plots. As Table 5 shows, on OQ total 27% of the patients had clinically significant improvement, against 8% that deteriorated. On OQcl total, 43% of the patients showed clinically significant improvement, and only 3% deteriorated. On ATGR-total, QGR-total and BORI-total, however, more patients deteriorated than improved, and percentages of improved and recovered patients are much lower than for the distress scales. This is related to the much larger proportion of patients of which change on these scales could not be established with 95% certainty. Table 6 shows the classification of patients on the specific ATGR scales.

*Table 6. Changes On Specific God Representation Scales*

	recovered	improved	unchanged	deteriorated	uncertain
Complexity	5%	3%	14%	27%	51%
Affect Tone person	8%	0%	14%	0%	78%
Affect Tone character	3%	0%	11%	8%	78%
Investment	3%	0%	0%	0%	97%
Agency	16%	5%	24%	8%	46%

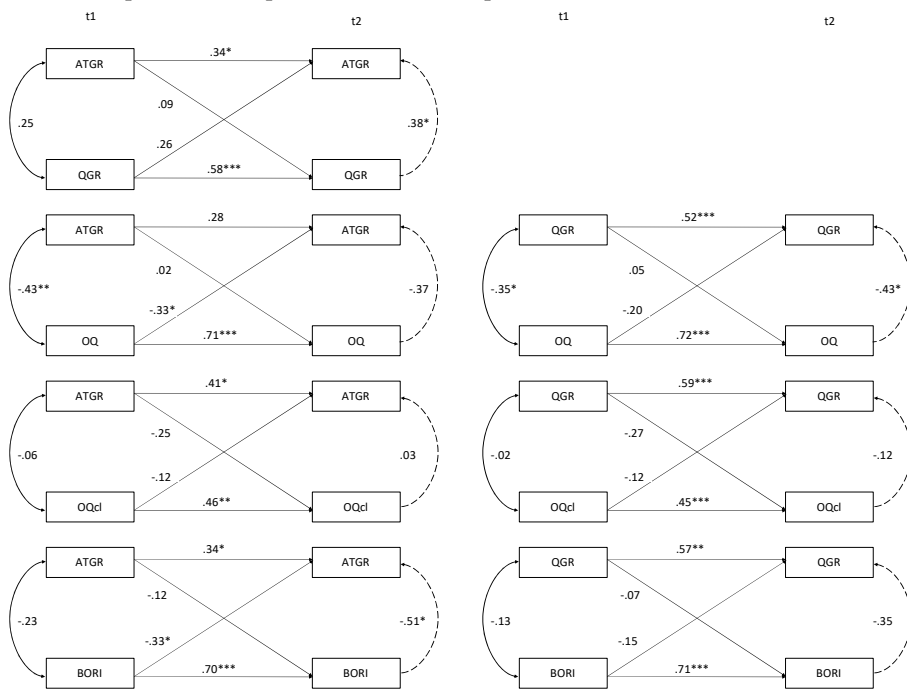
### Cross-Lagged Regression Analyses

Results of the cross-lagged regression analyses are shown in Figure 3. At the start of treatment, the implicit and explicit God representations (ATGR) were significantly associated with explicit distress (OQ) only, and not with implicit distress (OQcl), explicit object-relational functioning (BORI) and explicit God representations (QGR). Explicit distress and object-relational functioning had great stability over time, whereas implicit God representations were much less stable and also less stable than explicit God representations.

With explicit distress in the model, implicit God representations at t2 were significantly predicted by explicit distress, but not by implicit God representations at t1, whereas explicit God representations at t2 were highly significantly predicted by explicit God representations but not by explicit distress at t1. With implicit distress in the model, scores on implicit and explicit God representations at t2 were significantly predicted by their scores at t1, but not by scores on implicit distress on t1. With object-

relational functioning in the model, both implicit God representations and object-relational functioning at t1 significantly predicted implicit God representations at t2, whereas explicit God representations at t2 were highly significantly predicted by explicit God representations only, and not by object-relational functioning, at t1. Implicit and explicit God representations at t1 did not significantly predict explicit or implicit distress or object-relational functioning at t2.

Controlling for functioning at t1, changes on implicit God representations could significantly be predicted by changes in explicit God representations and in object-relational functioning, but not by changes in implicit or explicit distress. Adding explicit God representations at t2 in step 2 explained a significant extra proportion of 9% of variance in implicit God representations at t2,  $p = .044$ . Adding object-relational functioning at t2 in step 2 explained a significant extra proportion of variance (13%) in implicit God representations at t2,  $p = .011$ .



The double arrows between the scales at t1 represent the correlations between the scales. The single arrows between t1 and t2 scales represent the standardized regression weights (beta's) with the two t1 scales as predictors and a t2 scale as dependent variable. The dashed arrows between the scales at t2 represent the beta's with t2 ATGR or QGR as dependent variable, and the other t2 variables plus the two t1 variables as predictors.

Figure 3. Cross-lagged regression analyses.

## 7. Changes in God representations, object-relational functioning, and distress

Controlling for functioning at t1, changes on explicit God representations were significantly predicted by changes in explicit distress, but not by changes on implicit distress and object-relational functioning. Adding explicit distress at t2 in step 2 explained a significant extra proportion of 10% of variance in explicit God representations at t2,  $p = .044$ .

Because two of the cross-lagged paths from the other scales to the ATGR, but none of the cross-lagged paths from the ATGR to the other scales were significant, the models suggest the causal predominance of (changes in) object-relational functioning on (changes in) implicit God representations. None of the cross-lagged paths from the other scales to the QGR were significant.

To examine if changes on implicit God representation scores were associated with religious salience, another series of five two-step hierarchical regression analyses was conducted. None of the ATGR scales was significantly associated with religious salience.

## Discussion

In this validation study we assumed, based on theory and previous research, that changes in God representations at the end of treatment would be significantly associated with changes in distress and in interpersonal functioning. More specifically, we expected that (a) implicitly assessed God representation would be improved at the end of the treatment program, and (b), that changes in implicitly assessed God representations would be associated with changes in explicit God representations, several aspects of distress (the OQ, the OQcl), and self-reported object-relational functioning (BORI). Our first expectation was partly confirmed: on one of the five main scales of the ATGR, scores were significantly improved. Our second expectation was also partly confirmed: changes in implicit God representations were significantly associated with changes in self-reported God representations and object-relational functioning, but not with implicitly or explicitly measured distress. This sensitivity for changes corroborates the longitudinal construct validity of the ATGR. Moreover, the findings demonstrate incremental validity of the implicit ATGR over the explicit QGR by showing that changes in the implicit ATGR scores, but not changes in the explicit QGR were associated with changes in object-relational functioning

## Changes in God Representation Scales

On one ATGR scale (Affect Tone person), the average group score significantly improved, with a large effect size, from start to end of treatment. This is an important finding, because although some other studies (Kerlin, 2017; Mohammadi et al., 2017; Monroe & Jankowski, 2016) also reported large effect sizes for changes in God representations, all of these studies used self-report measures that are susceptible to social

desirability and doctrine effects. On the other hand, this ATGR scale is not -like the Affect Tone character and the other ATGR scales—an *indirect* measure and is therefore also more susceptible for social desirability and doctrine effects.

However, despite the observed significant change with a large effect size on group level, when handling rather strict criteria for clinically significant change by applying the formula of Jacobson and Truax (1991), on individual level only 8% of the patients had clinically significant changes on this God representation scale.

### **Associations Between Changes in God Representations and Changes in Distress**

Results indicated that changes in implicit God representations were hardly associated with changes in distress, although God representations in general are clearly associated with well-being and distress (Stulp, Koelen, Schep-Akkerman, et al., 2019), also in the sample of the present study (Stulp, Koelen, et al., 2019a). On group level, there was a significant decrease, with medium effect size, in experienced distress, but the high percentage of OQ scores that remained in the clinical range (80%) indicates that most patients still suffer greatly from their problems, and therefore changes in most aspects of God representations may have been too weak to significantly lower distress, or vice versa. Another explanation may be that changes in God representations have delayed effects on well-being/distress. Hall (2007) refers to a crucial phase in the spiritual transformation phase with respect to patients' implicit knowledge of themselves, God and others: the incubation phase. On a deep, unconscious level, new insights about their experiences develop, new story lines are developed about who they are with and to God and others. It is unknown how this process works, but, according to Hall, it is followed by illumination; a sudden and new conscious awareness. In a therapeutic program that predominantly focusses on the self in relationship with others, it is plausible that changes in God representations, although in process, are yet still less integrated in a patient's daily life than changes in interpersonal representations.

The significant change on group level in average Affect Tone person score indicates that on the explicit level many patients may experience more positive feelings towards God after treatment than at the start of their treatment, whereas this was not the case for the other (implicit) ATGR scales or for the explicit QGR scales. Changes in explicit distress were not significantly associated with changes in the aggregated scale for implicit God representations, but they were associated with changes in explicit God representations. Therefore, the increased positivity towards God, as measured by this more explicit ATGR scale, may be influenced by social desirability effects, that may even be enhanced by the face-to-face assessment of the ATGR, which may explain why only on this scale, and not on the other implicit or explicit God representation scales, significant improvement occurred.

## 7. Changes in God representations, object-relational functioning, and distress

**Differences between explicit and implicit distress in strength of associations with implicit God representations.** We also examined whether changes in implicit God representations would be more strongly associated with implicit than with explicit measures of distress, which would provide additional evidence of the implicitness of the ATGR scales. However, none of the changes on the OQCl total scale was significantly associated with changes on any of the implicit God representation scales. Also, the average clinicians' rating of patients' distress at the start of the treatment was higher than the average patients' rating, whereas at the end of the program the average clinicians' rating of patients' distress was lower than the average patients' rating. Perhaps this may be attributed to an allegiance effect for clinicians, leading them to believe the therapeutic effects of their efforts to be larger than they actually were, according to the patients. Allegiance effects for researchers are well-known, but for clinicians they are, although just as plausible, hardly acknowledged and examined (Boccaccini, Marcus, & Murrie, 2017).

### **Associations Between Changes in God Representations and Changes in Object-relational functioning**

Changes in implicit God representations were significantly associated with changes in object-relational functioning. Although it might be tempting to assume that the found changes were caused by the therapeutic program, due to the absence of a control group, our research design does not allow for this conclusion. Neither do the results conclusively inform us about the causal direction of associations between changes. Theoretically, it seems most logical to assume that the treatment program, by focusing predominantly on more positive view of self and others, directly influenced object-relational functioning, and that changes in that domain affected God representations. The results of the cross-lagged analyses hint in this direction. Although the examination of this association falls outside the scope of this article, we did some ad hoc analyses that showed that the associations between changes on all four dimensions of object-relational functioning and changes in distress were highly significant, undergirding the more central role of interpersonal representations.

### **Clinical Implications**

Results of this study demonstrate that changes in object-relational functioning are related to changes in implicit God representations. It might be interesting to examine if a stronger therapeutic focus on (changing) implicit God representations might be helpful and perhaps also forms an additional entry to a change of views of self and others, and to enhanced well-being. Assessing God representations at the start of the treatment program, setting treatment goals for developing more positive God representations and systematically integrating religious interventions might be beneficial,

especially for patients who clearly have additional distress caused by religious struggles (Exline, 2013). Of course this should be done in consultation with the patients, carefully and with respect for their doctrinal beliefs.

## **Limitations and Future Directions**

We consider it a strength of this study that we looked in detail at the association between changes in God representations in parallel with changes in object-relational functioning of people and changes in distress. However, the study also has several limitations, which need to be taken into account when interpreting the results. A first limitation is the small sample size, that has resulted in lack of power to significantly identify potentially existing, but weaker associations between changes in God representations and changes in distress. A second limitation is the observational design. Without a control group, nothing can be concluded about the cause of the found changes in the variables of this study. A third limitation is that the GAF score, the implicit distress measure that on the first assessment had stronger associations with the implicit than with the explicit God representation scales (Stulp, Koelen, et al., 2019a), was not assessed on the second assessment. Moreover, no implicit measures of object-relational functioning were available for the second assessment. A fourth limitation is the absence of a follow-up assessment after, for example, three or six months, to examine potential delayed associations between changes in God representation and changes in distress. A fifth limitation is the limited focus of the OQ measure on symptoms and functioning; it is plausible that changes in implicit God representations are more strongly associated with changes on a deeper level, that could have been assessed with measures of for example meaning and purpose, hope, optimism, religious or existential well-being or worldview. A sixth limitation is that the treatment program of the patients of this study did not use a manualized protocol for religious interventions.

Future research into changes in implicit God representations should incorporate the above-mentioned measures that were not used in this study and should do a follow-up assessment. It is also important that randomized clinical trials about the effects of religious and not-religious interventions on God representations, well-being and distress, and relational functioning are conducted.

All in all, this study clearly demonstrated that changes in object-relational functioning (that were highly significantly associated with changes in distress) were also significantly associated with implicitly measured God representations. Hopefully, future research will reveal more about the effects of therapeutically influencing God representations and about its effects on mental health.

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