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Research paper

# Therapeutic relationship in the treatment of geriatric depression with executive dysfunction

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ABSTRACT

*Background:* The effects of therapeutic relationship (TR) in elder mental health are understudied. A greater understanding of TR in geriatric psychotherapy is particularly needed for treating late-life depression with executive dysfunction, which predicts poor response to antidepressant medication and presents unique clinical challenges.

*Methods:* Participants were older patients (N = 220) with major depression and executive dysfunction who received 12 weeks of problem-solving therapy or supportive therapy in a randomized control trial. Multilevel growth curve modeling and latent change scores were used to analyze TR dimensions of *Understanding* and *Accepting* at the patient level (individual patient ratings, N = 194) and therapist level (ratings of each therapist averaged across participants, N = 10).

*Results:* TR predicted reduction of depression in both treatment groups, while treatment×TR interactions were not significant. Patients treated by therapists with higher average *Understanding* (patient and therapist level) and *Accepting* (therapist level) ratings had greater decreases in depression. The patient level×therapist level interaction for *Understanding* approached statistical significance (p=.065), suggesting a synergistic effect on treatment outcome. Together, *Understanding* and *Accepting* predicted 21% of variance in depression level changes.

*Limitations:* TR was not assessed throughout the course of treatment (only after the first therapy session and at post-treatment) and did not include ratings from an objective evaluator.

*Conclusions:* Assessment of patient's experience of the TR and of therapist ability to foster *Understanding* and *Accepting* can play a significant role in the delivery of geriatric psychosocial interventions.

## 1. Introduction

The relationship between therapist and client is a central element in effective psychotherapy (Gelso, 2014; Horvath et al., 2011), accounting for a large amount of the variance (an estimated 20–27%) in outcome (Gelso, 2014; Hovarth, 2005). Therapeutic relationship (TR) has been defined as the feelings and attitudes that the counseling participants have toward one another and the manner in which those are expressed (Gelso, 2014). TR is a "pan-theoretical" change agent because it is applicable to any therapeutic approach (Markin, 2014). Therapists cultivate the TR by applying clear within-session procedures (Arnow et al., 2013) and behaving flexibly and honestly (Ackerman and Hilsenroth, 2003). Early TR variance predicts psychotherapy outcomes based on the impact of therapist skill (Baldwin, Wampold, and Imel, 2007), their implementation of specific techniques (Arnow et al., 2013), and the expectations of clients in therapy (Wampold and Budge, 2012).

Relative to the vast literature on TR in adults (e.g., Arnow et al., 2013; Zuroff et al., 2010), few studies have focused on its association with psychotherapy outcomes in elderly populations and those have

*Abbreviations:* TR, Therapeutic Relationship; ST, Supportive Therapy; PST, Problem-Solving Therapy; HRSD, Hamilton Rating Scale for Depression; CPTS, Client Perception of Therapist Scale

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produced mixed results. Gaston et al. (1991) found a significant association between TR and cognitive therapy outcomes for geriatric depression. In contrast, TR was not significantly related to outcome in a 16-week psychotherapy trial in a different sample of older patients (Beutler and Clarkin, 1990). Nevertheless, increasing patient age has been found to predict stronger TR among depressed outpatients (Arnow et al., 2013), suggesting the importance of focus on this factor in geriatric mental health. Negative preconceptions of TR may also be associated with older adults' low use of psychological services, as anticipated discomfort discussing personal problems with a mental health professional is a predominant predictor of not seeking treatment for late-life mood and anxiety disorders (Byers et al., 2012).

Over the past three decades, psychotherapy has been an increasingly studied treatment for geriatric depression (Blazer, 2003). Psychotherapy is a particularly important treatment option for older adults with executive dysfunction, which is commonly associated with late-life depression (Alexopoulos and Kelly, 2009). This is because executive dysfunction, a neuropsychological manifestation of frontal system impairment, has consistently been shown to predict poor response to antidepressants (Alexopoulos et al., 2004, 2005; Dunkin et al., 2000; Pimontel et al., 2012; Potter et al., 2004). These patients often have a greater likelihood of psychomotor retardation, lack of insight into their illness, exacerbated disability, and impaired ability to apply adaptive coping strategies (Areán et al., 2010; Krapan et al., 2007).

Older adults with executive dysfunction may be well-suited for psychotherapies that either aim to directly address problem-solving deficits (e.g., problem-solving therapy, PST) or empathic understanding (e.g., supportive therapy, ST) and do not heavily rely on executive functions (Beaudreau et al., 2015). Both forms of treatment have been found to significantly reduce depression severity and lead to high response rates for these patients, with evidence of superiority for PST (Areán et al., 2010). The precise mechanisms related to PST and ST response remain unclear (Blazer, 2003; Kiosses et al., 2011). Recent studies have begun to identify clinical characteristics at baseline that are associated with depression outcomes (Beaudreau et al., 2015; Goodkind et al., 2016; Nelson et al., 2013). Less understood is the extent to which relationship-centered factors, such as the client's perception of the TR and the therapist's skill in fostering TR, predict psychotherapy response for geriatric depression.

Specific to older adults with depression and executive dysfunction, research demonstrating TR quality as a significant contributor to improved psychotherapy outcomes could help clinicians better recognize and treat the unique therapeutic challenges posed by these patients. Identifying patients who may be at risk for poor depression treatment outcomes based on initial assessments of TR may assist clinicians and administrators in providing the appropriate level of resources to meet specific patient needs. Such information could have important ramifications for practitioners' education and training in terms of prioritizing therapist skills and characteristics that cultivate TR. The importance of better understanding factors that influence the success of treatment for geriatric depression is underscored by the rapid growth of the elderly population and the increase and change in their mental health treatment needs (Hybels et al., 2009; Jeste et al., 1999).

The objective of the current study was to determine whether early perceptions of TR, based on individual patient ratings and aggregated ratings that reflect therapist skill (Baldwin et al., 2007), predict depression symptom reduction in response to psychotherapy. Previous research suggests that initial patient perceptions of the TR at the start of treatment may predict outcome better than assessments taken later (Hovarth, 2005). The strength of TR was measured by the multi-dimensional patient-report Client Perception of Therapist scale (CPTS; Lorr, 1965). We examined two CPTS subscales, *Understanding* and *Accepting*, to provide insight into specific mechanisms that might predict positive response to geriatric psychotherapy for those with executive deficits. Studying TR involves separating patient and therapist contributions (Baldwin et al., 2007), and their interaction (DeRubeis et al., 2005). Therefore, we used multilevel growth curve modeling to examine both therapist and patient contributions of *Understanding* and *Accepting* on change in depression throughout treatment. Given that therapeutic gains tend to parallel TR (Hovarth, 2005), a latent change score approach was also used to examine whether changes in the TR throughout treatment are associated with changes in depression.

This study analyzed data from a randomized control trial (Areán et al., 2010), which compared the efficacy of PST and ST for treating major depression in older adults with executive dysfunction. We tested four hypotheses: (1) Patient level *Understanding* and *Accepting* (i.e., individual patient perceptions of these aspects of TR) will be significantly associated with reductions in depression (i.e., higher TR leads to greater decreases). (2) Higher ratings of *Understanding* and *Accepting,* when averaged across all patients (i.e., therapist skill in fostering TR), will impact treatment response in a similar manner. (3) Therapist's ability to foster *Understanding* and *Accepting* at the beginning of treatment will interact with patient ratings of *Understanding* and Accepting (patient level) in predicting decreases in depression, such that high levels of both therapist and client ratings of TR will lead to the greatest decrease in depression. (4) We hypothesized that a treatment×TR interaction predicting that both *Understanding* and *Accepting* will be associated more strongly with decreases in depression in PST relative to ST. This was based on recent evidence for a robust TR-outcome association in cognitive-behavioral modalities, suggesting that greater structure contributes to perceptions of therapist competence (Arnow et al., 2013).

## 2. Methods

### 2.1. Participants

Participants from the Areán et al. (2010) study were community-dwelling older adults prospectively recruited (12/02 to 11/07) through radio or internet advertisements, senior center and healthcare provider referrals, and community talks. All participants completed written informed consent after receiving a complete description of the study.

Study inclusion criteria required a minimum age of 60, DSM-IV diagnosis of major depressive disorder, a Mini-Mental Status Exam (MMSE; Folstein et al., 1975) score ≥24 (to determine a lack of global cognitive impairment or dementia), Initiation/Perseveration subscale of the Mattis Dementia Rating Scale (Mattis, 1988) score < 33, and Stroop Color Word Test (Perret, 1974) scores < 25. The MMSE was chosen because it has documented reliability and validity in older adults, is widely used, and provides a recommended cutoff for determining a lack of global cognitive impairment (Sheehan, 2012). The Initiation/Perseveration and Stroop Color Word Test cutoffs were selected based on their ability to identify executive dysfunction in late-life depression and the correlation of low scores on these measures with poor response to antidepressant medication (Alexopoulos et al., 2005).

Individuals were excluded if they had a severe medical illness (e.g., metastatic cancer), were taking drugs that increase risk for depression (e.g., steroids), required maximum assistance in performing one or more activities of daily living even with assistance (walking with a cane would not constitute as ineligibility), were receiving psychological or pharmacological interventions for depression outside of the study protocol, expressed active suicidal ideation, had a DSM-IV Axis I diagnosis besides generalized anxiety disorder, were current substance abusers, had dementia (MMSE scores < 24 or a DSM-IV diagnosis of dementia), or had a history of head trauma (see Areán et al. (2010) for full criteria). In sum, participants met criteria for major depressive disorder and experienced executive dysfunction in the absence of global dementia.

Two hundred twenty participants were randomized into ST ($n$ = 112) or PST ($n$=108) through parallel assignment using random