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Acceptance and Commitment Therapy for Generalized Anxiety Disorder in Older Adults: A Preliminary Report

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Abstract

Some evidence suggests that acceptance-based approaches such as Acceptance and Commitment Therapy (ACT) may be well-suited to geriatric generalized anxiety disorder (GAD). The primary goal of this project was to determine whether ACT was feasible for this population. Seven older primary-care patients with GAD received 12 individual sessions of ACT; another 9 were treated with cognitive-behavioral therapy. No patients dropped out of ACT, and worry and depression improved. Findings suggest that ACT may warrant a large-scale investigation with anxious older adults.

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Generalized anxiety disorder (GAD) is a prevalent condition resulting in substantial impairment in quality of life among older adults (de Beurs, et al., 1999; Gum, King-Kallimanis, & Kohn, 2009; Porensky et al., 2009; Wetherell et al., 2004). It typically persists for decades; older GAD patients report a mean symptom duration of 20 to 30 years across studies in community, medical, and mental health samples in multiple countries, and the modal duration is lifelong (Chou, 2009; Le Roux, Gatz, & Wetherell, 2005; Lenze, et al., 2005; Rubio & Lopez-Ibor, 2007; Schoevers, Deeg, van Tilburg, & Beekman, 2005). Although antidepressant medications have demonstrated efficacy in the treatment of geriatric GAD, anxious older adults are often wary of pharmacotherapy due to hypervigilance for side effects, worry about potential adverse effects of medications, a desire to limit the number of drugs taken, or other factors, and many prefer psychotherapeutic treatment (Gum et al., 2006; Lenze et al., 2009; Metge, Grymonpre, Dahl, & Yogendran, 2005).

Virtually all psychotherapy research on late-life GAD to date has involved cognitive-behavioral therapy (CBT; Ayers, Sorrell, Thorp, & Wetherell, 2007). Although CBT is effective for older adults with depression (e.g., Serfaty, et al., 2009), evidence for its efficacy with anxious older adults is mixed (Hendriks, Oude Voshaar, Keijsers, Hoogduin, & van Balkom, 2008; Piquart & Duberstein, 2007; Schuurmans, et al., 2006; Stanley et al., 2009; Thorp, et al., 2009; Wetherell et al., 2009). CBT does not appear to ameliorate anxiety for older adults as well as it does for younger adults (Wolitzky-Taylor, Castriotta, Lenze, Stanley, & Craske, 2010). Therefore, the development of alternative models of psychotherapy that are both acceptable and effective for anxious older adults is a high public and mental health priority.

Acceptance and Commitment Therapy (ACT) is an evidence-based psychotherapy that targets the struggle with symptoms that may be most salient and disruptive in chronic disorders. The treatment focuses on acceptance as a process resulting in increased psychological flexibility that works as a buffer against experiential avoidance and ineffective coping (Luoma, Hayes, & Walser, 2007). Unlike CBT, the goal of ACT is not to reduce the frequency or severity of aversive internal experiences (e.g., thoughts, emotions, sensations, memories, urges), but rather to reduce the struggle to control or eliminate these experiences and increase engagement in meaningful life activities. Over the course of treatment, ACT balances acceptance with commitment to value-directed behavior change. The acceptance component includes mindfulness techniques designed to foster nonjudgmental awareness of experience, such as noticing thoughts without perseveration or avoidance of the thought content. Mindfulness has been shown to play a role in the treatment of GAD (Roemer et al., 2009). In the relatively short time since its development, ACT and acceptance-based treatments have amassed considerable support for depression and chronic pain and have recently demonstrated efficacy for GAD in younger adults (Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Longmore & Worrell, 2007; Roemer & Orsillo, 2007; Roemer, Orsillo, & Salters-Pedneault, 2008).

An acceptance-oriented coping style may be particularly congruent with healthy psychological functioning in aging. Many age-related problems, such as declining health, functional impairment, and loss of family or friends, are not amenable to the control-oriented strategies promoted by traditional CBT. In fact, some evidence suggests that older adults who make active efforts to eliminate problems that cannot be solved are at higher risk for depression and other negative outcomes (Isaacowitz & Seligman, 2002), and disengaging from commitments or goals that are unattainable followed by choosing an attainable alternative is associated with better emotional well-being (Wrosch, Dunne, Scheier, & Schulz, 2006; Wrosch, Scheier, Miller, Schulz, & Carver, 2003). Cross-sectional research in older samples supports the relationship between acceptance and quality-of-life factors

among older adults living in retirement communities (Butler & Ciarrochi, 2007), functionally impaired nursing home residents (Bickerstaff, Grasser, & McCabe, 2003), and individuals with medical conditions such as hearing loss (Gomez & Madey, 2001) and chronic pain (Yong, 2006). Although one study found that acceptance increased depressive symptoms in the elderly, acceptance in this investigation was operationalized as resignation and loss of hope, which is not the conceptualization used in ACT (Kraaij, Pruymboom, & Garnefski, 2002). Altogether, the chronic, perseverative worry characteristic of the disorder and the social and psychological factors associated with aging may make ACT particularly well suited for treatment of geriatric GAD. We therefore developed an ACT protocol and conducted a pilot study to explore the feasibility and acceptability of an ACT intervention with older GAD patients.

Method

Participants

Participants were 21 adults at least 60 years of age with a principal (i.e., most severe) diagnosis of GAD according to the *Diagnostic and Statistical Manual of Mental Disorders* criteria as assessed with the Anxiety Disorders Interview Schedule (American Psychiatric Association, 2000; DiNardo, Brown, & Barlow, 1994). The ADIS-IV was administered by a Ph.D.-level clinician.

Sixty patients were screened by telephone based on positive responses to two GAD screening items which were mailed to 1,140 patients from University of California, San Diego Geriatric Medicine clinics. Of those screened, 39 either did not meet study criteria or declined participation, and 21 were invited for an in-person diagnostic interview. Of those, 15 were enrolled. Another 29 patients were screened by telephone after responding to flyers posted in a community primary care clinic serving low-income older adults or other locations. Of these, 14 refused or did not meet study criteria, and 15 were interviewed in person. Six of these were enrolled. The 15 patients interviewed but not enrolled were excluded because they did not meet criteria for GAD ($n = 12$), met criteria for substance abuse in the past 6 months ($n = 2$), or had serious medical conditions that could compromise study participation ($n = 1$).

The sample had a mean age of 70.8 ($SD = 6.5$) years and included 11 men (52.5%) and 10 women (47.5%). Thirty-eight percent of participants were members of minority groups ($n = 3$ Latino, $n = 2$ Asian/Pacific Islander, $n = 2$ Native American, $n = 1$ African American). They were mostly well educated ($M = 15.5$ years of education, $SD = 2.6$), earned less than \$50K annually (68.4%), and most were retired (61.9%). Eleven participants (52.5%) were married and 7 (33.3%) were divorced or widowed. Although the average number of nonpsychiatric prescription medications taken was 4.7 ($SD = 4.2$), the mean level of medical illness burden based on the Cumulative Illness Rating Scale–Geriatrics (Miller et al., 1992) was 7.8 ($SD = 4.0$), indicating an overall good state of physical health.

Consistent with other research in older adults, the average duration of the current GAD episode was 28.3 years ($SD = 31.6$), including 6 participants (28.6%) who reported experiencing the disorder all their lives. Eleven participants (52.5%) were diagnosed with at least one comorbid Axis I disorder. These included major depression ($n = 8$), social phobia ($n = 3$), dysthymia ($n = 2$), and individual participants ($n = 1$ each) with obsessive-compulsive disorder, posttraumatic stress disorder, panic disorder, agoraphobia, and specific phobia.

Participants who were taking psychotropic medications during the initial assessment were permitted to continue taking these medications throughout the study, provided that they had

been on a stable dose and agent for at least 2 months and they agreed to remain on that regimen until the completion of study treatment. All complied with this requirement. Four (19.0%) out of the 21 participants took at least one prescribed psychotropic medication (zolpidem, 1; lorazepam, 1; fluoxetine plus temazepam, 1; venlafaxine XR plus clonazepam, 1). There were no significant differences on baseline measures of anxiety or worry between those taking psychotropic medications and those who were not.

Procedure

We used this feasibility study to pilot procedures necessary for a larger trial. Therefore, after completing the baseline assessment, the 21 participants were randomly assigned to receive either 12 weekly hour-long individual sessions of ACT ($n = 11$) or CBT ($n = 10$). Twelve sessions of psychotherapy is common practice in both CBT (Ayers et al., 2007) and ACT (Zettle, 2007). Patients were not informed of their treatment assignment until their first psychotherapy session. A 12-week waiting period between randomization and the start of treatment was designed to control for potential natural recovery, which our team observed in a previous investigation (Wetherell et al., 2009). Five participants withdrew from the study during the waiting period (due to time constraints, improvement in anxiety symptoms, or loss of contact). We present data from the 16 participants who attended at least one session of psychotherapy ($n = 7$ ACT, $n = 9$ CBT). The sample size precluded inferential statistics between the groups, so the data in this report are presented as separate open trials of the interventions.

Assessments were conducted by two research assistants blind to treatment condition. All participants who began therapy were contacted after their treatment or withdrawal to complete a posttreatment assessment. Twelve therapy completers and 2 dropouts completed this third assessment; two participants were lost to follow-up. Therapy completers were contacted again after six months for a follow-up evaluation; all 12 completed this fourth and final assessment.

Interventions

The ACT protocol focused on the limitations of control-oriented strategies and introduced the concepts of willingness and nonjudgmental observation of worry and other aversive internal experiences. Patients also completed exercises to help them identify core values and developed goals and action steps in the service of those values. Each session included a mindfulness exercise, and other metaphors and experiential exercises (e.g., finger trap, “tug of war with a monster,” “passengers on the bus”) were drawn from existing ACT protocols (Hayes, Strosahl, & Wilson, 1999). Patients completed daily written homework assignments (e.g., listing previously tried strategies to control worry), which were reviewed with the therapist every session.

The CBT protocol was based on components developed and tested with older GAD patients and was therefore slightly different from protocols used with younger people (Wetherell, et al., 2009). It included psychoeducation, symptom monitoring, relaxation and attention training, thought-stopping and scheduled worry (elements reported particularly helpful by participants in our team’s previous research), development and implementation of coping thoughts, problem-solving skills training, imaginal and *in vivo* rehearsal of coping strategies, and relapse prevention. As with ACT, patients completed daily homework assignments (e.g., relaxation exercises, thought records). Manuals for both conditions are available from the first author upon request.

The primary differences between the interventions were that the ACT protocol focused on values and goals clarification with an emphasis on willingness to experience all emotions

and situations (primarily acceptance-based strategies), whereas the CBT protocol was focused on psychoeducation and techniques for altering thoughts and behaviors (primarily change-based strategies). For a more comprehensive comparison of ACT with CBT, see Zettle (2007).

Psychotherapy was performed by six clinicians (five postdoctoral level and one master's level), supervised by the first author for CBT and the second author for ACT. Four therapists conducted both types of therapy; two therapists conducted only CBT. All therapists had at least 2 years of experience delivering CBT, one therapist had 2 years experience with ACT, and the others had no prior ACT experience. Therapy sessions were videotaped and reviewed in weekly supervision sessions to maintain fidelity to the treatment protocol. An external rater trained in both models evaluated adherence and competent delivery based on two tapes per therapist. Adherence and competence were rated separately on 5-point Likert scales for individual therapy elements (e.g., review of homework, presentation of new material) as well as overall for each tape. The overall ratings all fell in the range of adherent and competent performance.

Measures

Outcomes included anxiety, worry, depression, quality of life, and satisfaction with treatment. Anxiety symptoms were evaluated with the 14-item interviewer-rated Hamilton Anxiety Rating Scale (HAMA; Diefenbach, Stanley, Beck, Novy, & Averill, 2001; Hamilton, 1959), which emphasizes somatic and autonomic symptoms of anxiety. Interrater reliability in this sample according to the interclass correlation coefficient was .94. Worry was measured using the 16-item version of the Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990; Stanley, Novy, Bourland, Beck, & Averill, 2001). Cronbach's alpha in this sample was .79. Depressive symptoms were assessed with the 21-item Beck Depression Inventory–II (BDI-II; Beck, Steer, Ball, & Ranieri, 1996; Steer, Rissmiller, & Beck, 2000; alpha in this sample = 0.91). Mental health–related quality of life was measured using the Mental Component Score of the Medical Outcomes Study 36-Item Short Form Self-Report Health Survey (SF-36; Ware, Kosinski, & Gandek, 2000). Scores on this scale are expressed as *T*-scores, with higher scores indicating better quality of life. The 8-item Client Satisfaction Questionnaire (CSQ; Larsen, Attkisson, Hargreaves, & Nguyen, 1979), scored on a scale of 8 to 32, was used to evaluate satisfaction with treatment (alpha in this sample = .96).

Data Analytic Plan

We performed Wilcoxon rank sum tests to assess for changes between enrollment and the start of therapy across the full sample. We also examined potential differences between participants who did and did not begin therapy. Within each treatment group, we evaluated change between pretreatment and posttreatment and between posttreatment and follow-up using Wilcoxon tests.

Results

Preliminary Analyses

We did not find any significant differences between participants who did and did not begin therapy. The groups were also equivalent on all variables at the point of randomization (i.e., upon enrollment). On average, scores on all psychological outcome measures improved between the baseline assessment and the initiation of treatment among the 20 participants for whom baseline and pretreatment data were available: HAMA (baseline median = 19; pretreatment median = 12), $z = -2.45$, $p < .05$, $r = .55$, PSWQ (baseline median = 61; pretreatment median = 57), $z = -2.37$, $p < .05$, $r = .53$, BDI-II (baseline median = 19.5;

pretreatment median = 15.5), $z = -2.50$, $p < .05$, $r = .56$, and SF-36 MCS (baseline median = 35.1; pretreatment median = 44.7), $z = -3.09$, $p < .01$, $r = .69$. Because patients assigned to ACT improved significantly more on depressive symptoms over the waiting period than did those assigned to CBT, the groups were no longer equivalent on that variable at the commencement of treatment.

Treatment Effects

Table 1 presents data for all variables across all time points from the 7 participants who started ACT, and Table 2 presents the equivalent data for the nine participants who started CBT. All 7 ACT participants completed the therapy, and they showed improvement in worry scores and severity of depressive symptoms. Scores decreased significantly from pretreatment to posttreatment on the PSWQ (pretreatment median = 59; posttreatment median = 52), $z = -1.95$, $p = .05$, $r = .52$, and on the BDI-II (pretreatment median = 6; posttreatment median = 3), $z = -2.13$, $p < .05$, $r = .57$. Pretreatment to posttreatment scores did not reach statistical significance on the HAMA (pretreatment median = 15; posttreatment median = 7), $z = -1.89$, $p = .06$, $r = .50$, and the SF-36 MCS (pretreatment median = 55.0; posttreatment median = 57.1), $z = -1.69$, $p = .09$, $r = .45$. Changes from posttreatment to follow-up on all four outcome variables were nonsignificant, z 's = -0.10 to -1.21 , r 's = $.02$ to $.32$, suggesting stability of gains over time.

Five of the 9 individuals who started CBT completed treatment. These participants demonstrated significant improvement in anxiety and depressive symptoms: HAMA (pretreatment median = 12; posttreatment median = 8), $z = -2.02$, $p < .05$, $r = .64$, and BDI (pretreatment median = 20; posttreatment median = 12), $z = -2.02$, $p < .05$, $r = .64$. Scores did not reach statistical significance between pre- and posttreatment on the PSWQ (pretreatment median = 61; posttreatment median = 46), $z = -2.20$, $p = .08$, $r = .55$, and no significant changes were reported on the SF-36 MCS (pretreatment median = 46.2; posttreatment median = 41.3), $z = -0.67$, ns , $r = .21$. Changes from posttreatment to follow-up on all four variables were nonsignificant, z 's = 0.00 to -1.21 , r 's = $.00$ to $.38$.

Satisfaction was evaluated in two ways: attrition and the CSQ. Fewer patients in the ACT condition (0/7) withdrew from treatment than in the CBT condition (4/9), although this difference did not reach statistical significance (Fisher's Exact Test, $p = .088$). Mean CSQ scores were 26.4 (5.4) for ACT and 26.7 (6.9) for CBT, $t(14) = -.087$, $p > .05$, suggesting an overall high level of satisfaction with treatment.

Discussion

Results from this pilot study suggest that ACT is feasible to use with older adults with GAD. All 7 of the participants who received ACT completed all 12 sessions. Preliminary outcome data suggest that ACT may be effective in reducing depressive symptoms and worry, even when conducted by novice therapists. This is consistent with other data suggesting that this treatment is relatively easy to learn and therefore potentially to disseminate (Lappalainen et al., 2007). Although fewer CBT participants completed treatment, participants who received CBT showed an improvement in anxiety and depressive symptoms.

In general, the effects of ACT in this study were substantially smaller than effects observed in younger adult samples with GAD (e.g., Roemer & Orsillo, 2007; Roemer et al., 2008). It is possible that an adaptation of the intervention with fewer elements that are particularly relevant to older adults may be more effective. Ongoing work in Spain adapting an ACT intervention for dementia caregivers, many of whom are elderly, suggests that values and committed action may be the most important components of an effective acceptance-based

intervention for older individuals (Márquez-González, Romero-Moreno, & Losada, A., in press).

Results from this study also suggest that patients waiting for treatment may show improvement. This replicates our team's previous findings that older GAD patients may improve over time regardless of treatment (Wetherell et al., 2009). These findings are unusual in the GAD treatment outcome literature (Thorp et al., 2009) and are even more surprising in the context of the long duration of anxiety and worry reported by these participants. The difference may be due to the extensive assessments that may have conveyed a therapeutic benefit. The demographic characteristics of these samples or other factors specific to San Diego may also account for these anomalous results.

The primary goal of this study was to establish the feasibility of ACT with older GAD patients; a secondary goal was to pilot procedures to be used in a larger trial. Studies that investigate new mental health treatments with anxious older adults are critically important for several reasons: (a) older adults are the most rapidly growing demographic group (U.S. Department of Health and Human Services, 2009); (b) anxiety disorders are three times more prevalent than depression in the elderly (Gum et al., 2009); (c) no psychotherapeutic treatment has a convincing evidence base for late-life anxiety (Wetherell, Ruberg, & Petkus, in press); (d) pharmacotherapy may carry risks in this population; and (e) many older people prefer psychotherapy to medications (Gum et al., 2006). Feasibility studies are essential as precursors for large-scale efficacy trials. Results from this pilot study suggest that ACT is feasible and merits empirical evaluation as a treatment for GAD in older adults.

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Table 1

Anxiety, Worry, Depression, and Mental Health-Related Quality of Life in 7 Older Adults Receiving Acceptance and Commitment Therapy for Generalized Anxiety Disorder

ID	HAMA			PSWQ			BDI-II			SF-36 MCS		
	Pre	Post	6 mo	Pre	Post	6 mo	Pre	Post	6 mo	Pre	Post	6 mo
1	18	18	14	65	55	56	2	3	0	40.6	46.5	34.9
2	15	7	7	59	31	28	5	1	0	57.7	57.1	62.3
3	25	12	15	46	55	40	15	4	5	53.7	53.0	61.7
4	11	10	6	55	46	40	6	2	0	55.0	57.4	56.9
5	19	5	7	60	52	60	15	11	12	20.5	48.9	41.9
6	10	3	5	73	61	67	5	4	1	57.8	58.4	54.6
7	2	3	5	47	30	27	8	1	2	57.3	58.9	58.7

Note. HAMA = Hamilton Anxiety Rating Scale; PSWQ = Penn State Worry Questionnaire; SF-36 MCS = Medical Outcomes Study 36-Item Short Form Mental Component Summary Score.

Anxiety, Worry, Depression, and Mental Health-Related Quality of Life in 9 Older Adults Receiving Cognitive Behavioral Therapy for Generalized Anxiety Disorder

ID	HAMA			PSWQ			BDI-II			SF-36 MCS		
	Pre	Post	6 mo	Pre	Post	6 mo	Pre	Post	6 mo	Pre	Post	6 mo
1 [*]	10	--	--	50	--	--	11	--	--	45.5	--	--
2	12	5	9	56	46	33	25	11	11	54.8	54.8	59.5
3 ⁺	19	15	--	60	56	--	21	14	--	35.0	47.2	--
4 [*]	17	--	--	59	--	--	21	--	--	43.8	--	--
5	25	14	25	71	46	62	33	15	33	26.8	36.8	21.6
6	11	9	0	64	54	38	20	12	0	42.7	42.5	58.6
7	13	8	5	51	43	24	17	7	1	49.2	41.3	60.1
8	10	7	3	61	62	57	19	14	20	46.2	32.1	42.8
9 ⁺	13	6	--	50	48	--	18	4	--	34.8	53.7	--

Note. HAMA = Hamilton Anxiety Rating Scale; PSWQ = Penn State Worry Questionnaire; SF-36 MCS = Medical Outcomes Study 36-Item Short Form Mental Component Summary Score.

* Indicates patient who dropped out of treatment and could not be contacted for follow-up.

[†] Indicates participant who dropped out of treatment but provided follow-up information upon termination.