



HHS Public Access

Author manuscript

Aging Ment Health. Author manuscript; available in PMC 2022 March 01.

Published in final edited form as:

Aging Ment Health. 2021 March ; 25(3): 431–438. doi:10.1080/13607863.2019.1697204.

Religious Coping and Acceptability and Outcome of Short-term Psychotherapeutic Treatments for Depression among Low-Income Homebound Older Adults

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Abstract

Objectives.—To examine (1) correlates of religious coping, and (2) associations of religious coping at baseline with evaluation of treatment acceptability and depressive symptom severity outcomes of short-term psychotherapeutic depression treatments among 277 low-income homebound older adults (70% female; 41% non-Hispanic White, 30% African American, and 29% Hispanic) who participated in a treatment effectiveness trial.

Method.—Religious coping was measured with a 2-item subscale of the Brief COPE. Treatment acceptability was measured with the 11-item Treatment Evaluation Inventory (TEI). Depressive symptoms were measured with the 24-item Hamilton Rating Scale for Depression (HAM-D). We used linear regression modeling to examine correlates of religious coping at baseline and to examine associations of religious coping with treatment acceptability and depression outcome at 12 weeks.

Results.—Being female and being African American predicted higher religious coping. Additionally, active coping, emotional support coping, and clergy consultation on depression were significantly associated with higher religious coping. Religious coping was not significantly associated with TEI and HAM-D scores at 12 weeks.

Conclusion.—The findings show that once these older adults participate in depression treatment, they find it highly acceptable and benefit from treatment, regardless of their religious coping, and that psychotherapeutic treatment is a highly acceptable and effective addition to those with religious-oriented coping.

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Disclosure of interest

The authors report no conflict of interest.

Keywords

Homebound older adults; religious coping; depression; treatment acceptability

INTRODUCTION

Individuals whose religion is a salient part of their orienting system often engage in religious coping as a significant part of their well-being (Pargament, 1997; Pargament et al., 2011). Religious coping, defined as the use of religious beliefs and/or behaviors/practices to facilitate problem-solving to prevent or alleviate negative emotional consequences of stressful life circumstance, is considered to be a coping method consciously chosen by individuals in their efforts to deal with stress or adverse life situations (Koenig, Pargament & Nielson, 1998; McDougale, Konrath, Walk, & Handy, 2016). Older adults are more likely than younger adults to report religion as very important in their lives (Pew Research Center, 2018), and many of them engage in religious coping to deal with late-life stressors (Lee & Sharpe, 2007).

A well-established knowledge base from both cross-sectional and longitudinal studies shows that older adults with religious faith who engage in more positive religious/spiritual coping (such as prayer, meditation, pastoral support, and benevolent religious reframing) experience better mental, physical and cognitive health as well as higher overall quality of life (Bjorkolf, Engedal, Selbæk, Kouwenhoven, & Helvik, 2013; Boss, Branson, Cron, & Kang, 2016; Bosworth, Park, McQuoid, Hays, & Steffens, 2003; Koenig, George, & Titus, 2004; Pargament et al., 2004; Pargament et al., 2011; Vitorino, Low, & Vianna, 2016). Among low-income, racial/ethnic minority older adults, positive religious coping buffered the effects of negative religious coping (e.g., religious/spiritual discontent and struggle, punishing God reappraisal, demonic reappraisal [Pargament, 1997]) on anxiety and depression (O'Brien et al., 2019). Mental health benefits of religious coping are attributed to strong sense of meaning, purpose, and hope; optimism (e.g., merciful and benevolent God); empowerment and sense of control (e.g., praying to feel better); role models (e.g., those rewarded for their faith); action-oriented/active coping (e.g., taking steps to compensate for real or perceived wrongs that have been committed); and emotional support (e.g., divine support as well as advice and encouragement from faith community) (Koenig, 2018; Dilworth-Anderson, Boswell, & Cohen, 2007).

Research also shows that a high degree of religiosity (importance of religion and prayer when dealing with stressful situations) is associated with a lower likelihood of seeking professional mental health treatment, especially among African Americans, regardless of symptom severity (Lukachko, Myer, & Hankerson, 2015). A qualitative study with 37 depressed older African Americans found participants handled depression on their own, most often relying on religious coping in the face of significant barriers to professional mental health services (e.g., lack of access to mental health services, mistrust of providers and treatments, ageism, lack of awareness of depressive symptoms, and stigma) (Conner, 2010a). Another qualitative study with African Americans, in this case older women with

depression, also found that religious practice and resilience were more culturally-sanctioned coping methods than seeking professional help (Ward, Mengesha, & Issa, 2014).

Older adults who are religious and use religious coping may also favor the inclusion of religion/spirituality into treatment when they seek professional mental health services. In a survey of older adults (35% racial/ethnic minorities) who previously participated in cognitive behavioral therapy (CBT) studies for anxiety and/or depression, a majority expressed such a preference (Stanley et al., 2011). This preference was even higher among those reporting a more predominant role of religion/spirituality in their lives, greater strength of religious faith, and engagement in positive religious coping (Stanley et al., 2011). However, the study did not report whether perceived acceptability and outcomes of CBT differed by religiosity and use of religious coping.

To our knowledge, little research has examined the relationship between religious coping and acceptability and outcomes of psychotherapeutic depression treatments among older adults who participate in such treatments. In the present study, we examined: (1) correlates of religious coping, and (2) associations of religious coping at baseline with the acceptability (i.e., treatment participants' evaluation of treatment's benefits and risks) and depressive symptom severity outcomes of short-term, evidence-based psychotherapeutic depression treatments among low-income homebound older adults from a treatment effectiveness trial.

Homebound Older Adults and Depression

Despite research showing an overall steady increase in disability-free life among U.S. older adults in recent decades (Chernew Cutler, Ghosh, & Landrum, 2016; Crimmins, Zhang, & Saito, 2016), the increase was less applicable to African American and Hispanic older adults, compared to non-Hispanic White older adults. As a result, the racial/ethnic gap in transitioning into disability has widened (Dong, Freedman, Sánchez, & Mendes de Leon, 2019; Freedman & Spillman, 2016; Lin, Beck, & Finch, 2014). Moreover, growing numbers of older adults are mirrored by increasing numbers of disabled and homebound older adults. Among community-dwelling U.S. older adults (aged 65+) receiving Medicare in 2011, 5.6% (or nearly 2 million) were estimated to be either completely or mostly homebound, never or rarely (i.e., once a week or less) leaving their home in the preceding month, and an additional 15% (5.3 million) were considered semihomebound given their difficulty getting out of the home or needing personal assistance to do so (Ornstein et al., 2015). About three-quarters of completely or mostly homebound adults were women and one-third were non-White; homebound older adults also had less education and income than nonhomebound peers their age (Ornstein et al., 2015).

Along with high medical burden, homebound older adults suffer from depression at rates two to three times higher than their ambulatory peers (Choi, Teeters, Perez, Farar, & Thompson, 2010; Johnson, Sharkey, & Dean, 2011; Xiang, Leggett, Himle, & Kales, 2018). Depression exacerbates the clinical manifestations of comorbid medical conditions, such as diabetes and hypertension, and is a risk factor for poor outcomes in these conditions, owing partly to the negative influence of depression on self-care management (American Psychiatric Association, 2010). While the main treatment for geriatric depression is pharmacotherapy prescribed by primary care physicians, many older adults have limited

response to pharmacotherapy alone (Calari et al., 2013; Kok & Reynolds, 2017; Tedeschi, Levkovitz, Iovieno, Ameral, Nelson, & Papakostas, 2011; Weissman, Meyers, Ghosh, & Bruce, 2011). The effectiveness of pharmacotherapy is especially weak for older adults with low-socioeconomic status (Cohen, Houck, Szanto, Dew, Gilman, & Reynolds, 2006), as pharmacotherapy does not address multiple life stressors that are depression risk factors for these older adults.

Previous research shows that in lieu of or in combination with pharmacotherapy, evidence-based psychosocial treatment such as problem-solving therapy, delivered in person at older adults' homes or via in-home videoconferencing, is effective for homebound older adults (Choi, Sirey, & Bruce, 2013). However, homebound older adults, especially low-income and racial/ethnic minority older adults, face multiple personal (e.g., stigma, lack of understanding about depression, self-sufficiency beliefs) and system barriers (e.g., lack of transportation to clinic-based psychotherapy, mistrust of mental health service systems) to accessing psychotherapy (Choi & Gonzalez, 2005; Connor et al., 2010b; Wuthrich & Frei, 2015). As described, religious practice is a more culturally-sanctioned coping strategy among older African Americans. In a recent focus group discussion facilitated by the authors, case managers from an aging services organization for low-income, racial/ethnic minority homebound older adults also noted that a preference for religious coping among these older adults was a frequent reason for declining referrals to psychotherapy. Although depressive symptom severity is a significant predictor of treatment initiation among older adults (Sirey et al., 2016), no previous research has examined whether religious coping is associated with treatment acceptability and outcome after starting treatment. Findings from the present study likely provide important insights into the effect (or lack thereof) of religious coping among those who received psychotherapeutic treatment.

Hypotheses

Based on previous studies, the study hypotheses were: (H1) higher religious coping would be significantly associated with older age, female gender, African American or Hispanic race/ethnicity, lower depressive symptoms, higher active and emotional support coping, and clergy consultation about their depression at baseline; and (H2) older adults with higher religious coping would find treatment more acceptable and experience better treatment outcome at 12-week follow-up as religious coping represents optimistic (vs. pessimistic) and active (vs. passive) approaches to dealing with mental distress.

METHODS

Study Participants

The study participants were 277 depressed, homebound individuals aged 50+ who were enrolled in a randomized clinical trial (RCT; [ClinicalTrials.gov](https://clinicaltrials.gov/ct2/show/study/NCT02600754) identifier NCT02600754) of clinical effectiveness of short-term, videoconferenced depression treatments delivered by bachelor's-level trained lay providers compared to master's-level, licensed mental health clinicians. A majority (>95%) of the sample were referred to the study team by case managers from a home-delivered meals program in Central Texas, while the rest came from other aging-service agencies and primary care clinics serving low-income, homebound older

adults during the 38-month enrollment period. All study participants had moderately severe to severe depressive symptoms (24-item Hamilton Depression Rating Scale [HAMD] 15). Exclusion criteria were high suicide risk, probable dementia, bipolar disorder, psychotic disorder, and substance abuse.

Participants were randomized into three RCT arms: (1) five, one-hour, weekly videoconferenced sessions of behavioral activation treatment for depression (BATD) delivered by bachelor's-level providers (n=90); (2) five, one-hour, weekly videoconferenced sessions of problem-solving therapy (PST) delivered by master's-level providers (n=93); and (3) five, 30-minute, weekly telephone check-in calls by research assistants (attention control; n=94). All participants also received two monthly booster calls following their five weekly treatment sessions or telephone check-in calls. Written informed consent, approved by the authors' university institutional review boards, was obtained from each participant after the study procedures had been fully explained. Videoconferencing equipment was loaned to participants during the intervention phase.

Participants were administered the baseline assessment one week prior to videoconferenced treatment (or telephone check-in calls), followed by an assessment at 12 weeks after baseline. Trained assessors conducted all assessments in person at the participant's home, save for a few exceptions (e.g., telephone assessments for participants who moved out of area at time of follow-up). To examine correlates of religious coping, we used baseline data from all 277 participants. To examine the associations of religious coping with treatment acceptability, we used 12-week follow-up data from 169 participants in BATD (n=84) and PST (n=85). To examine the associations of religious coping with the severity of depressive symptoms, we used 12-week follow-up data from 252 participants in BATD (n=84), PST (n=85), and attention control (n=83). Twenty-five participants (9.1% of all participants) were lost to follow-up assessment due to hospitalization/inpatient rehabilitation, death, or relocation out-of-state without providing contact information. No BATD and PST participant dropped out during treatment due to dislike of or disagreement with treatment modalities or sessions.

Treatments: BATD and PST

BATD is a brief, structured behavioral approach that aims to increase and reinforce healthy behavior (e.g., engaging in meaningful life activities aligned with personal values and beliefs) and to decrease depressive behavior (e.g., staying in bed all day) (Lejuez, Hopko, & Hopko, 2001; Lejuez, Hopko, Acierno, Daughters, & Pagoto, 2011). In BATD, depressive symptoms are viewed as depressive behaviors; people with depression engage in fewer overt behaviors that provide pleasure/enjoyment or positive reinforcement and in more behaviors that function to escape or avoid aversive stimuli (e.g., staying in bed all day) compared to those without depression (Dimidjian, Barrera, Martell, Munoz, & Lewinsohn, 2011; Lewinshon & Libet, 1972; Lewinshon, 1974; Polenick & Flora, 2013). BATD is based on a theoretical model of matching law that the relative frequency of reinforcement for depressive behavior, compared to nondepressive behavior, is proportional to the relative value of reinforcement provided for these behaviors (Polenick & Flora, 2013). BATD is especially suitable for disabled homebound older adults, as they have limited social engagement and

activities due to their homebound state and likely to be acceptable to them given its goal to reinforce healthy behaviors that improve both physical functioning and mood.

PST is a brief, structured, cognitive-behavioral treatment that teaches patients problem-solving coping skills to help them deal with major negative life events as well as daily problems that are making them depressed (D’Zurilla & Nezu, 2007; Mynors-Wallis, 2005; Nezu, Nezu, & Perri, 1989). PST is based on the conceptual framework that people with deficits in problem-solving skills become vulnerable to depression because such deficits lead to ineffective coping attempts under high levels of stress (Nezu et al., 1989). The treatment process focuses on appraisal and evaluation of specific problems and the best possible solutions and their implementation. PST also addresses anhedonia and psychomotor retardation through behavioral activation and through increased exposure to pleasant events. PST’s practical approach, centered on “here and now” problem-solving skills training and behavioral activation, has been demonstrated as acceptable and effective treatment with homebound older adults (Choi, Marti, Bruce, Hegel, Wilson, & Kunik 2014).

Measures

Depressive symptoms.—The 24-item HAMD consists of the GRID-HAMD-21 structured interview guide (Depression Rating Scale Standardization Team, 2003) augmented with three additional items that assess feelings of hopelessness, helplessness, and worthlessness, with specific probes and follow-up questions developed by Moberg et al. (2001). According to Moberg and colleagues (2001), these cognitive symptoms are thought to be more sensitive to depression in older adults. The HAMD was administered at baseline and at 12-week follow-up.

Religious coping (at baseline).—This was measured by a two-item subscale of the Brief COPE (Carver, 1997). The Brief COPE is based on both theoretically meaningful aspects of coping reactions and empirical evidence of the importance of particular aspects of coping responses to psychologically impactful/meaningful stresses (Carver, 1997). The Brief COPE includes 14 subscales, each with two items. The Brief COPE’s developers recommend examining each subscale separately as they each measure conceptually differentiable coping responses (Carver, 1997). The two items for religious coping in “difficult situations” were: (1) I have been trying to find comfort in my religion or spiritual beliefs; and (2) I have been praying and meditating. Both items were on a 4-point scale (not at all=0, a little bit=1, medium amount=2, a lot=3). We used combined scores from both items (0–6), with higher scores representing higher degrees of religious coping. Cronbach’s α for religious coping for this study sample were 0.83.

Treatment acceptability.—At 12-week follow-up, all BATD and PST participants were administered the 11-item, 7-point scale modified Treatment Evaluation Inventory (TEI; Landreville & Guette, 1998). The TEI has two subscales: (1) General Acceptability scale, with eight items measuring the acceptability, suitability, and likely effectiveness of a treatment; likeability of the procedures used in the treatment; participant’s willingness to apply the treatment to other people similar to them; consistency of the treatment with common sense or everyday ideas about what treatment should be; and general reaction to the

treatment. (2) Negative Aspects subscale, with three items measuring undesirable side effects, discomfort, and possible risks of undergoing the treatment. An overall score of 44, out of the maximum possible 77, indicates moderately favorable attitudes toward the treatment. Cronbach's α for the 11-item TEI for this study sample were 0.84.

Active coping, emotional support coping, and clergy consultation.—Participants were also administered two items for active coping (concentrating my efforts on doing something about the situation I am in, taking action to try to make the situation better; Cronbach's $\alpha=0.73$), and two items for using emotional support (getting emotional support from others, getting comfort and understanding from someone; Cronbach's $\alpha =0.77$). Both were subscales of the Brief COPE (Carver, 1997) and chosen as correlates of religious coping (Koenig, 2018). At baseline, assessors also asked participants if they had talked to a clergy to help them “get out of the mood when feeling sad, depressed, or down in the dumps in the past three months” (yes=1, no=0).

Other participant characteristics.—These included baseline sociodemographics (age, gender, race/ethnicity, education, financial situation). Living arrangement, number of chronic illnesses—arthritis, diabetes, hypertension, heart disease, stroke, emphysema/ chronic bronchitis/other lung problems, kidney disease, liver disease, and cancer (0–9), and impairments in activities of daily living (ADL; 0–6) and instrumental activities of daily living (IADL; 0–6) are reported for descriptive purposes only.

Analysis

All analyses were performed using SPSS v.25 (IBM Corp, Armonk, NY). First, all participants' characteristics were described with percentage distributions or mean scores with standard deviations. (We found no significant differences in all key variables among three RCT arms at baseline.) To examine correlates of religious coping, we used linear regression modeling with sociodemographic factors, active and emotional support coping scores, clergy consultation, and HAMD score as covariates. To examine associations of religious coping with treatment acceptability and depression outcome, we used hierarchical linear regression modeling. For treatment acceptability, TEI was regressed on religious coping in the first step, and sociodemographic factors, treatment condition (BATD vs. PST), and 12-week HAMD score entered as control variables in the next step. For treatment outcome, 12-week HAMD score was the dependent variable, with religious coping score as the sole independent variable in the first step, and sociodemographic factors, treatment condition (BATD or PST vs. attention control), and baseline HAMD score entered as control variables in the next step. Since the first step models did not contribute anything unique, we present only the full models in the tables. Effects were considered statistically significant if the two-tailed $\alpha < .05$.

RESULTS

Participant Characteristics

Table 1 shows that at baseline, participants were on average 67.5 (SD=8.9; range=50.5–97.8) years old; 70% female; 41% non-Hispanic White, 30% African American, and 29%

Hispanic; and 50% lived alone. About a quarter of participants had a college degree while another quarter did not have a high school education; 81% reported household income \$25,000 and 83% stated that they could not make ends meet or just about manage to get by. Participants with a college degree reported higher income than those without. Participants scored 23.0 (SD=5.7) on HAMD, with 3.8 (SD=1.6) chronic illnesses, and had 1.9 (SD=1.6) ADL impairments and 3.0 (SD=1.4) IADL impairments. The mean scores were 4.3 (SD=2.0) for religious coping, 3.2 (SD=1.9) for active coping, and 2.8 (SD=2.0) for emotional support coping. About a fifth (19%) of participants reported that they talked to a clergy about their depression in the preceding three months.

At 12-week follow-up, the mean total TEI score was 70.5 (SD=8.0), without any significant difference between the BATD and PST groups. No group difference was found in the General Acceptability and Negative Aspects subscale scores, either. The mean HAMD score was 15.5 (SD=7.6) for all participants, and it was 15.1 (SD=7.7) for the BATD group, 12.6 (SD=6.5) for the PST group, and 18.9 (SD=7.2) for the attention control group. HAMD scores for the BATD and PST groups did not differ from each other ($p=.078$), but both groups differed from the attention control group.

Correlates of Religious Coping

Table 2 shows that being female and being African American predicted higher religious coping. Additionally, active coping, emotional support coping, and clergy consultation on depression were significantly associated with higher religious coping. Age, Hispanic ethnicity, college degree, financial situation, and baseline HAMD score were not significant correlates.

Association between Religious Coping and Treatment Acceptability

When religious coping alone was entered in the first step, it was not significantly associated with TEI score ($t=1.866$, $p=.064$). Table 3 shows that the only significant correlate of TEI score was having a college degree and it was associated with lower TEI scores.

Association between Religious Coping and 12-week HAMD Score

When religious coping alone was entered in the first step, it was not significantly associated with 12-week HAMD score among BATD or PST participants ($t=-1.010$, $p=.314$). Table 3 shows that the significant correlates of 12-week HAMD score were age, being African American, baseline emotional support coping, baseline HAMD score, and participation in BATD or PST versus attention control. Older age, being African American, higher emotional support coping scores at baseline were associated with lower 12-week HAMD scores, but higher baseline HAMD scores were associated with higher 12-week HAMD scores. Participation in BATD or PST was associated with significantly lower 12-week HAMD score.

DISCUSSION

Religious coping has a positive impact on older adults' mental health, but it may also contribute to their reluctance in seeking professional mental health services. Previous studies

also suggested that religious older adults may prefer to seek mental health help in religious contexts, with religious content incorporated into psychotherapeutic treatment (McGowan & Midlarsky, 2012; Stanley et al., 2011). The present study examined associations of religious coping with treatment acceptability and depressive symptom severity outcome among low-income homebound older adults who participated in a short-term evidence-based depression treatment study.

Our findings show that as expected, women and African Americans had higher religious coping. However, age and baseline depressive symptoms were not associated with religious coping. We speculate that the lack of association was likely because all study participants were disabled, homebound individuals suffering from clinically significant depressive symptoms. Compared to their older counterparts, younger-age homebound individuals face even more stressors from loss of employment and independence and lack of health insurance, to name just a few, which may have led to their use of religious coping as much as their older counterparts. Religious coping was also positively associated with active coping and emotional support coping, which aligns with previous research showing those who engage in more religious coping use more active and emotional support coping (Koenig, 2018). The findings provide partial support for H1.

The key finding is that religious coping was not a factor for treatment acceptability or outcome (no support for H2), suggesting that once these older adults participate in treatment, they find it highly acceptable and benefit from treatment. The high TEI scores show that participants had, overall, very favorable attitudes toward both BATD and PST. Absence of attrition during the intervention, for reasons such as dislike of treatment or disagreement with its procedures, also confirms the high degree of treatment acceptance, although in-home videoconferenced treatment sessions no doubt bolstered the high retention rate. Regardless of religious coping, participants indeed appear to have optimistic and active tendencies and made the most of their treatment once they enrolled.

Positive BATD and PST outcomes corroborate the strong evidence base of psychotherapy for prevention and treatment of geriatric depression, including those for frail older adults (Jonsson et al., 2016; Lee et al., 2012). A previous study also found no difference in treatment adherence or clinical effectiveness between conventional CBT and religiously integrated CBT for major depression in persons with chronic medical illness (Koenig et al., 2015). A systematic review also found that religiously modified CBT for religious people with depression, generalized anxiety, and schizophrenia was not more effective than conventional CBT (Lim, Sim, Renjan, Sam, & Quah, 2014). All these findings point to the importance of improving access to psychotherapeutic interventions for depression prevention and treatment in late life.

Interestingly, the only significant predictor of TEI was having a bachelor's degree; those with college education (who also reported higher income) had a lower degree of acceptance than those without college, even though college-educated participants were equally likely to have benefited from treatment. To our knowledge, no previous study examined the association between educational level and satisfaction with mental health services; however, a study of patient and family ratings of end-of-life care and communication provided by

physicians-in-training found that patients (and their families) with lower income and lower educational attainment gave trainees higher ratings (Long et al., 2014). Researchers speculated that those with higher education and income may have expected more from their physicians and had unmet expectations, especially in terms of informational and emotional needs. To reiterate, clinical effectiveness (i.e., 12-week HAMD scores) did not differ by educational level in the present study. Thus, lower TEI scores among college-educated participants, compared to participants without college education, suggest that they may have had higher expectations for treatment. Unsolicited and solicited comments from study participants who gave lower TEI scores indicated they wanted treatments more directly focused on their emotional needs and had more demands for treatment providers. For example, one college-educated male participant stated that the treatment was well designed, but he wanted more in-depth focus on his emotions.

The study was not without a couple of limitations. First, findings from a geographically limited area sample may not be generalizable. Second, the sample was relatively small and limited to older homebound adults willing to participate in a research study as well as those without cognitive deficits and other mental health conditions. At the same time, the study had its unique strength, especially given that almost 60% of the study participants were African American or Hispanic and mostly low-income. This allowed for the opportunity to examine associations between religious coping and depression treatment acceptability and outcome among racially/ethnically diverse, low-income homebound older adults. Since these older adults have been largely excluded from previous geriatric depression studies, the present study provides valuable insights and significantly adds to the knowledge base.

As discussed, many older adults are reluctant to receive psychotherapy even if they have access to it. Findings from this study can inform homebound and other older adults who suffer from depression but are reluctant to participate in psychotherapy as well as aging service providers who work with them. The message is that older adults who participated in such treatments found it highly acceptable and beneficial, regardless of religious coping, and that psychotherapy is a highly acceptable and effective addition to those with religious-oriented coping. Along with increasing investment for improving access to in-home or tele-delivered depression treatments for low-income, depressed homebound older adults, case managers and health/mental health providers working with these older adults, and especially those expressing a preference for religious coping to psychotherapeutic treatment, should use study findings to help motivate them to seek/engage in psychotherapeutic treatment.

Funding

This work was supported by the National Institute on Minority Health and Health Disparities (under grant 1R01MD009675; PI: N. Choi). St. David's Foundation also provided supplemental grant.

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Table 1.

Participant characteristics at baseline and at 12-week follow-up

Variable	N	M (SD)	%
At baseline (N=277)			
Age (yrs)	277	67.5 (8.9)	
Gender			
Female	193		69.7
Male	84		30.3
Race/ethnicity			
Non-Hispanic White	113		40.8
Non-Hispanic Black	83		30.0
Hispanic	81		29.2
Living alone	138		49.8
Education			
<High school	73		26.4
High school diploma	45		16.2
Some college/Associate's degree	92		33.3
Bachelor's degree or higher	67		24.2
Household income			
Up to \$15,000	150		54.2
\$15,001-\$25,000	73		26.4
\$25,001-\$35,000	32		11.6
\$35,001 or higher	22		7.9
Self-rated financial status			
Cannot make ends meet/Just about manage to get by	230		83.0
Have enough to get along, even a little extra	42		15.2
Money is not a problem; can buy anything I want to	5		1.8
24-item HAMD score	277	23.0 (5.7)	
No. of chronic illnesses	277	3.8 (1.6)	
No. of ADL impairment	277	1.9 (1.6)	
No. of IADL impairment	277	3.0 (1.4)	
Religious coping	277	4.3 (2.0)	
Active coping	277	3.2 (1.9)	
Emotional support coping	277	2.8 (2.0)	
Talked to a clergy about depression	53		19.1
At 12-week follow-up			
Treatment acceptance ¹ (TEI score; N=169)		70.5 (8.0)	
BATD (n=84)		70.1 (8.6)	
PST (n=85)		70.9 (7.4)	

Variable	N	M (SD)	%
24-item HAMD score ² (N=252)		15.6 (7.6)	
BATD (n=84)		15.1 (7.7)	
PST (n=85)		12.6 (6.5)	
Attention control (n=83)		18.9 (7.2)	

M=mean; SD=standard deviation of the mean; HAMD=Hamilton Rating Scale for Depression;

ADL=activities of daily living; IADL=instrumental activities of daily living; TEI=Treatment Evaluation Inventory

¹ t-test results for BATD and PST: t-value=-0.677, p=.499

² ANOVA results (Bonferroni-corrected) for the BATD, PST and attention control groups: F=16.260, df=2, p<.001; BATD=PST (p=.078); BATD <attention control (p=.002); PST<attention control (p <.001)

Table 2.

Correlates of religious coping at baseline: Results from linear regression analysis

	B (SE)	t-value	P
Intercept	1.02 (1.21)	0.837	.403
Age	0.003 (0.01)	0.258	.797
Female	0.92 (0.24)	3.750	<.001
African American	0.88 (0.28)	3.112	.002
Hispanic	0.51 (0.28)	1.823	.069
Bachelor's degree	-0.43 (0.28)	-1.566	.118
Cannot make ends meet/just manage to get by	0.44 (0.31)	1.430	.154
Active coping score	0.25 (0.06)	3.926	<.001
Emotional support coping score	0.14 (0.06)	2.331	.021
Clergy consultation on depression	0.91 (0.29)	3.197	.002
Baseline HAMD score	0.02 (0.02)	0.758	.449
<i>N</i> =277; <i>R</i> ² =.241; Adjusted <i>R</i> ² =.213; SE=1.808			

Table 3.

Association between religious coping and treatment acceptance and treatment outcomes at 12 weeks

	12-week TEI score			12-week HAMD score		
	B (SE)	t-value	P	B (SE)	t-value	P
Intercept	72.55 (6.18)	11.748	<.001	15.53 (4.42)	3.510	.001
Religious coping score	0.46 (0.34)	1.350	.727	-0.03 (0.22)	-0.131	.896
Age	-0.03 (0.08)	-0.349	.638	-0.11 (0.05)	-2.358	.019
Female	1.06 (1.41)	0.754	.452	0.85 (0.87)	0.971	.333
African American	-1.63 (1.61)	-1.012	.313	-2.20 (1.00)	-2.194	.029
Hispanic	-1.43 (1.70)	-0.841	.402	-1.77 (0.98)	-1.797	.074
Bachelor's degree	-4.19 (1.50)	-2.788	.006	0.35 (0.98)	0.359	.720
Cannot make ends meet/just manage to get by	0.25 (1.74)	0.144	.886	1.01 (1.08)	0.940	.348
Active coping score	0.25 (0.37)	0.692	.490	0.14 (0.24)	0.593	.554
Emotional support coping score	0.46 (0.35)	1.301	.195	-0.59 (0.21)	-2.802	.005
Clergy consultation on depression	-1.78 (1.62)	-1.095	.275	-1.02 (1.05)	-0.978	.329
BATD vs. PST	-1.17 (1.31)	-0.893	.373			
12-week HAMD score	-0.18 (0.10)	-1.893	.060			
BATD vs. attention control				-3.81 (0.95)	-3.997	<.001
PST vs. attention control				-6.59 (0.96)	-6.896	<.001
Baseline HAMD score				0.53 (0.07)	7.252	<.001
Model statistics	$N=169$; $R^2=.136$; Adjusted $R^2=.068$; $SE=7.753$			$N=252$; $R^2=.353$; Adjusted $R^2=.302$; $SE=5.986$		