Title

Cognitive-Behavioral Therapy in Depressed Primary Care Patients with Co-Occurring Problematic Alcohol Use: Effect of Telephone-Administered vs. Face-to-Face Treatment—A Secondary Analysis

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Cognitive-behavioral therapy in depressed primary care patients with co-occurring problematic alcohol use: effect of telephone-administered vs. face-to-face treatment – A secondary analysis

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Abstract

This secondary analysis of a larger study compared adherence to telephone-administered cognitive-behavioral therapy (T-CBT) vs. face-to-face CBT and depression outcomes in depressed primary care patients with co-occurring problematic alcohol use. To our knowledge, T-CBT has never been directly compared to face-to-face CBT in such a sample of primary care patients. Participants were randomized in a 1:1 ratio to face-to-face CBT or T-CBT for depression. Participants receiving T-CBT ($n = 50$) and face-to-face CBT ($n = 53$) were compared at baseline, end of treatment (week 18), and 3-month and 6-month follow-ups. Face-to-face CBT and T-CBT groups did not significantly differ in age, sex, ethnicity, marital status, educational level, severity of depression, antidepressant use and total score on the Alcohol Use Disorders Identification Test. Face-to-face CBT and T-CBT groups were similar on all treatment adherence outcomes and depression outcomes at all timepoints. In conclusion, T-CBT and face-to-face CBT had similar treatment adherence and efficacy for the treatment of depression in depressed primary care patients with co-occurring problematic alcohol use. When targeting patients who might have difficulties in accessing care, primary care clinicians may consider both types of CBT delivery when treating depression in patients with co-occurring problematic alcohol use.

Keywords

telephone; face-to-face; depressed; alcohol; primary care

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INTRODUCTION

Primary care patients represent a population with a significant prevalence of substance use disorders (Alam & Martorana 2011; Pilowsky & Wu 2012). Behavioral interventions, such as cognitive-behavioral therapy (CBT), motivational interviewing and brief counseling, have been used to treat substance use disorders in primary care (Babor et al. 2007; Gordon et al. 2008; Pilowsky & Wu 2012). Regarding CBT, face-to-face CBT has been used to treat primary care patients with primary substance use disorders (Funderburk et al. 2011; Kay-Lambkin et al. 2009; O'Malley et al. 2003; Wittchen et al. 2011) and dual diagnoses of substance use disorders and depression (Garcia Campayo et al. 2008; Kay-Lambkin et al. 2011). However, financial and organizational resources are usually limited in primary care (Johnson et al. 2011; Turner 2009; Van Hook et al. 2007). Some patients, such as those living in urban areas with time-consuming travel arrangements or those living in rural areas, might have difficulties in accessing care (Borders & Booth 2007; Miller et al. 2006), leading to high treatment attrition rates; accessing care is particularly difficult for those patients in rural areas with primary substance use disorders (Borders & Booth 2007; Gamm 2004; Jackson & Shannon 2012; Sexton et al. 2008; Wood 2008) and co-occurring psychiatric diagnoses (Anderson & Gittler 2005; Ouimette et al. 2007). Such limitations warrant comparing non face-to-face methods with face-to-face methods of CBT delivery for primary care patients with primary substance use disorders and co-occurring psychiatric diagnoses.

Telephone delivery is one non face-to-face method, and literature has found telephone-administered interventions to be feasible (Carter et al. 2008; Hubbard et al. 2007; Mbilinyi et al. 2011; McKay et al. 2011) and effective in individuals with a substance use disorder in primary care (Bischof et al. 2008; Brown et al. 2007; Oslin et al. 2003; Stotts, Diclemente & Dolan-Mullen 2002; Tait et al. 2007; Zanjani, Bush & Oslin 2010; Zanjani et al. 2008) and addiction-focused settings (Cacciola et al. 2008; Chong & Herman-Stahl 2003; Godley et al. 2010; Hall & Huber 2000; Horng & Chueh 2004; Karno et al. 2012; McKay et al. 2010; Mulleady 2001; Parker, Turk & Busby 2002; Rus-Makovec & Cebasek-Travnik 2008). Telephone delivery is commonly believed to overcome treatment barriers present in traditional face-to-face delivery. However, telephone methodology cannot be assumed to be similar to face-to-face methodology (McKinstry et al. 2010; Pridemore, Damphousse & Moore 2005). The literature on comparing telephone-administered CBT (T-CBT) with traditional face-to-face CBT for substance use disorders in any setting is limited (Currie et al. 2004; Killen et al. 2008). The literature is even more scant in dually diagnosed primary care patients and in primary care patients with problematic substance use. To our knowledge, T-CBT has never been directly compared to face-to-face CBT to treat depression in primary care patients with problematic alcohol use.

A recently published study of T-CBT versus face-to-face CBT for depression in 325 primary care patients with major depressive disorder (Mohr et al. 2012), which included 103 patients with problematic alcohol use, can help add to the literature of non face-to-face methods of CBT delivery for primary care patients with problematic substance use. The aim of this secondary analysis was to compare adherence rates of T-CBT vs. face-to-face CBT and depression outcomes in depressed primary care patients with problematic alcohol use. The T-CBT and face-to-face CBT interventions were delivered by clinical PhD-level

psychologists in a primary care setting. We decided to focus on patients with depression and problematic alcohol use for this analysis, since depression and co-occurring problematic alcohol use are common (Crum et al. 2001). For example, some reports show that 15%–25% of patients with depression have co-occurring problematic alcohol use (Kessler et al. 1996; Matsumoto et al. 2011).

Though the sample size for this secondary analysis is smaller than the primary analysis, we are able to report outcomes at the end of treatment (week 18), 3-month follow-up, and 6-month follow-up. We hypothesized that T-CBT participants would attend significantly more sessions than those receiving face-to-face CBT due to the feasibility and efficacy of telephone delivery. We also hypothesized that significantly fewer participants would discontinue T-CBT before session 18 compared with face-to-face CBT. Finally, to stay consistent with the primary manuscript (Mohr et al. 2012), we hypothesized that T-CBT participants would not have inferior depression outcomes compared to face-to-face CBT participants.

MATERIALS AND METHODS

Procedures and Measures

Full details of the study used for this analysis are described in the primary manuscript (Mohr et al. 2012). Briefly, participants met criteria for major depressive disorder, had a Hamilton Depression Rating Scale (Ham-D) score greater than or equal to 16, were aged 18 years or older, could speak and read English, and were able to participate in face-to-face or telephone therapy. For this analysis, "problematic alcohol use" was defined using the positive screen criteria with the Alcohol Use Disorders Identification Test (AUDIT) total score, per the National Institute on Alcohol Abuse and Alcoholism (NIAAA 2007): AUDIT score of 4 or more for men over age 60 or women, or AUDIT score of 8 or more for men age 60 or younger. All participants provided informed consent, and the study was approved by the Northwestern University institutional review board.

Participants were randomized in a 1:1 ratio to face-to-face CBT or T-CBT for depression. Full details of the CBT protocol are described in the primary manuscript (Mohr et al. 2012). Briefly, face-to-face CBT and T-CBT used the same protocol, with the treatment delivery method being the only aspect that differed between conditions. Participants received eighteen 45-minute sessions: 2 sessions weekly for the first 2 weeks, followed by 12 weekly sessions, with 2 final booster sessions the last 4 weeks. All participants received a workbook that included 8 chapters covering CBT concepts, along with 5 optional modules of common comorbidities and treatment content. Nine clinical PhD-level psychologists provided both face-to-face CBT and T-CBT. Face-to-face CBT was provided in the Preventive Medicine clinic at Northwestern University, and T-CBT was provided only on the telephone.

This analysis only included the 103 depressed participants who at least met criteria for problematic alcohol use. The AUDIT was administered at baseline and at the end of treatment (week 18). All psychiatric diagnoses were determined using the Mini-International Neuropsychiatric Interview (Sheehan et al. 1998). The four treatment adherence outcomes at the end of treatment (week 18) for this analysis were: 1) number of CBT sessions attended,

2) failure to engage in treatment [attended fewer than 5 sessions], 3) failure to complete treatment [attended more than 4 CBT sessions but less than 18 CBT sessions], and 4) discontinuation of treatment [did not attend CBT session #18]. The depression outcomes at all 3 timepoints (end of treatment [week 18], 3-month follow-up, 6-month follow-up) for this analysis were: 1) Patient Health Questionnaire-9 Score, 2) 17-item Hamilton Depression Rating Scale Score, 3) whether a participant was receiving an active dose of antidepressant medication, 4) whether a participant continued to meet criteria for major depressive disorder, 5) response criteria on the Hamilton Depression Rating Scale, defined as a 50% decrease in Ham-D score, and 6) remission criteria on the 7-item Hamilton Depression Rating Scale, defined as less than or equal to 7. The 17-item Ham-D scores are clinically described (Kearns et al. 1982) as follows: 0–7 normal, 8–13 mild depression, 14–18 moderate depression, 19–22 severe depression, >=23 very severe depression.

Statistical Analysis

All analyses between both groups were conducted using IBM SPSS Statistics version 20 (Armonk, NY). Since this was an exploratory secondary analysis, P-values < 0.05 were considered significant. z-scores assessed continuous variables for extreme values (> 3.29 or < -3.29). The Kolmogorov-Smirnov and Shapiro-Wilk tests assessed normality, and the Levene's test assessed homogeneity of variance. Non-parametric tests were used to analyze continuous variables when appropriate. The chi-square and Fisher's exact tests were used to analyze categorical variables. The Wilcoxon signed-rank test was used to analyze the change in AUDIT score from baseline to end of treatment.

RESULTS

Table 1 presents baseline characteristics of the face-to-face CBT and T-CBT groups. Both groups did not significantly differ in age, sex, ethnicity, marital status, educational level, severity of depression (severe depression using the Ham-D score), antidepressant use, total score on the Alcohol Use Disorders Identification Test and substance use disorder diagnosis. One AUDIT score was an extreme value; adjusting this score made no difference in the final analysis.

Table 2 presents end of treatment (week 18) clinical and treatment adherence outcomes. Regarding the AUDIT total score and depression outcomes, the face-to-face CBT and T-CBT groups did not significantly differ on any outcomes (mild depression using the Ham-D score). Regarding treatment adherence outcomes, both groups did not significantly differ in the number of CBT sessions attended, failure to engage in treatment, failure to complete treatment and discontinuation of treatment. The decrease in AUDIT total score from baseline to end of treatment was significant in participants in each group ($P < 0.001$); this decrease in AUDIT total score was not significant between groups ($P = 0.21$).

Since there were 26 participants between the face-to-face CBT group ($n = 13$) and T-CBT group ($n = 13$) who discontinued treatment (did not attend CBT session #18), we checked if there were any significant differences between the participants who discontinued treatment and the participants who remained in treatment. A greater number of participants who remained in treatment (57.1%) than participants who discontinued treatment (30.8%) were

significantly likely to have a single marital status [$\chi^2(1) = 5.41$, $P = 0.02$]. A greater number of participants who discontinued treatment (61.5%) than participants who remained in treatment (36.4%) were significantly likely to meet remission criteria on the Hamilton Depression Rating Scale [$\chi^2(1) = 5.03$, $P = 0.03$]. Participants who remained in treatment were not significantly different on any other variable compared with participants who discontinued treatment.

Since there were 13 participants between the face-to-face CBT group ($n = 7$) and T-CBT group ($n = 6$) who did not complete the AUDIT at the end of treatment (week 18), we checked if there were any significant differences between the participants who completed the AUDIT at the end of treatment and those who did not. Participants who did not complete the AUDIT at the end of treatment (median age 33) were significantly younger than participants who completed the AUDIT at the end of treatment (median age 44.5) [Ws = 448.0, z = 2.27, P = 0.02]. A greater number of participants who did not complete the AUDIT at the end of treatment (92.3%) than participants who completed the AUDIT at the end of treatment (35.6%) were significantly likely to meet remission criteria on the Hamilton Depression Rating Scale [$\chi^2(1) = 15.0$, $P < 0.001$]. Participants who completed the AUDIT at the end of treatment were not significantly different on any other variable compared with participants who did not complete the AUDIT at the end of treatment.

Table 3 presents post-study depression outcomes. At 3-month follow-up, the face-to-face CBT and T-CBT groups did not significantly differ on any depression outcomes (mild depression using the Ham-D score). One PHQ-9 score was an extreme value; adjusting this score made no difference in the final analysis. Similarly, at 6-month follow-up, the face-to-face CBT and T-CBT groups did not significantly differ on any depression outcomes (mild depression using the Ham-D score).

DISCUSSION

This secondary analysis of a larger study compared treatment adherence rates of T-CBT vs. face-to-face CBT and depression outcomes in depressed primary care patients with problematic alcohol use. The T-CBT and face-to-face CBT groups were similar on all treatment adherence and depression outcomes in this sample of depressed primary care patients with problematic alcohol use. Using the 17-item Ham-D score, depression decreased from the severe range at baseline to the mild range at the end of treatment and at 3-month and 6-month follow-up. The discontinuation, failure to engage in and failure to complete treatment outcomes and the mean and median numbers of CBT sessions attended were similar, suggesting that both types of CBT delivery in the primary care setting are feasible for depressed patients with problematic alcohol use.

Some of the findings in this analysis are different from the findings of the overall analysis (Mohr et al. 2012), where number of CBT sessions attended, failure to engage in treatment, and discontinuation of treatment were significantly different between groups. Perhaps those with depression and co-occurring problematic substance use disorder had a poorer quality of life – something which is found in dual diagnosis populations (Benaiges, Prat & Adan 2012; Bizzarri et al. 2005; Singh et al. 2005). This may have led such participants to stay in

treatment longer for their depression or equally dropout – *regardless* of the method of CBT delivery. However, this is speculative, as quality of life using a scale specific to substance abuse populations (eg, Drug User Quality of Life Scale (Brogly et al. 2003; Hubley & Palepu 2007; Hubley, Russell & Palepu 2005)) was not included in the primary study.

The finding in this analysis of the 17-item Ham-D score decreasing from the severe range at baseline to the mild range at the end of treatment is similar to the overall analysis (Mohr et al. 2012). The Ham-D score remained in the moderate range for the T-CBT group in the overall analysis at 3-month and 6-month follow-up (Mohr et al. 2012), whereas the Ham-D score decreased to the mild range for the T-CBT group in this analysis at 3-month and 6-month follow-up. This may have been related to the beginning pattern of decrease in alcohol consumption in the study based on the decrease in AUDIT total score from baseline to end of treatment. However, the AUDIT was not administered at 3-month or 6-month follow-up in order to further speculate on this finding.

An interesting finding is the significant decrease in AUDIT total score from baseline to end of treatment in both groups (Table 2), as substance use was not a focus of the CBT in either group. One possible explanation for this finding is that participants may have been "self-medicating" their depression with alcohol (Bolton, Robinson & Sareen 2009; Miller et al. 2002), and improving the depression with either face-to-face CBT or T-CBT resulted in a decrease in problematic alcohol use from not needing to self-medicate their depression as much. Since the decrease in AUDIT total score between both groups was not significant, this finding also suggests that either delivery method of CBT for depression can help decrease co-occurring problematic alcohol use.

Regarding the significant differences between the participants who discontinued treatment and the participants who remained in treatment, and between the participants who completed the AUDIT at the end of treatment and the participants who did not complete the AUDIT at the end of treatment, these findings may be related to a limited number of participants who discontinued treatment compared to those who remained in treatment. These significant differences need further exploration with larger sample sizes.

With a sample size of 103, these data suggest there may be no true differences between T-CBT and face-to-face CBT for this population. Primary care clinicians may consider using T-CBT when treating depression in patients with co-occurring problematic alcohol use who might have difficulties in accessing care (eg, patients who are living in urban areas with time-consuming travel arrangements or who are living in rural areas) and find similar efficacy as face-to-face CBT. Depression did decrease from the severe range at baseline to the mild range at the end of treatment and at 3-month and 6-month follow-up.

The clinical PhD-level psychologists who actually delivered either form of CBT were physically located in a primary care setting. Since it is unlikely that primary care providers themselves will deliver 18 sessions of either form of CBT due to time constraints of a busy primary care practice (Baron 2010; Kaner, Haighton & McAvoy 1998; Moayyeri et al. 2011), these data also call for increasing the physical presence of PhD-level psychologists in

primary care settings to help primary care providers successfully treat depressed patients with problematic alcohol use.

This analysis has several strengths. First, this analysis is the 1st report to directly compare T-CBT with face-to-face CBT for depression in primary care patients with problematic alcohol use. Second, patients in a broader primary care setting were selected, instead of patients in a narrower addiction treatment setting. Third, we are able to report depression outcomes at three timepoints (end of treatment [week 18], 3-month follow-up, 6-month follow-up), instead of only one end of treatment outcome. Finally, four different treatment adherence outcomes and six different depression outcomes were analyzed, instead of just one treatment adherence outcome or one depression outcome.

This analysis has several limitations. First, the primary study was not specifically designed to assess the aim of this *post-hoc* analysis, which was focused on methods of CBT delivery for depressed primary care patients with problematic alcohol use. Second, substance use behaviors were not the focus of either CBT intervention, which might lead to different treatment adherence outcomes. Third, concomitant medication history was not collected when the primary study was initially conducted. Such medication history could have more fully characterized the sample in this analysis. Fourth, we included participants who at least met criteria for problematic alcohol use in this analysis, which meant that participants with more severe substance use disorders were also included (see Table 1). We had insufficient statistical power to either analyze those with only a substance use disorder, or to exclude all participants with a substance use disorder. To preserve sufficient statistical power, we used a broader criterion of at least minimum problematic alcohol use in this analysis. Finally, alcohol/substance use was not more thoroughly assessed, such as quantification of alcohol/ substance use or presence of nicotine dependence, which can help evaluate the impact of substance use itself on treatment adherence outcomes.

In conclusion, in this preliminary secondary analysis, T-CBT for depression may have similar treatment adherence and depression outcomes as face-to-face CBT for depression in primary care patients with problematic alcohol use. Primary care clinicians may consider either type of CBT delivery when treating such patients. For patients with problematic alcohol use who have barriers to accessing care, such as those living in urban areas with time-consuming travel arrangements or those living in rural areas, T-CBT may represent a reasonable option for depression that might provide similar efficacy as face-to-face CBT. Future larger clinical trials directly comparing T-CBT to face-to-face CBT can help definitively determine whether CBT delivery via telephone is similar in efficacy to face-to-face in depressed patients with problematic alcohol use who are treated in the primary care setting. Closer assessment of substance use behaviors will also be essential in such future clinical trials.

Acknowledgments

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Table 1

Baseline Characteristics of Participants with Problematic Alcohol Use.

	Face-to-Face CBT $n = 53$	T-CBT $n = 50$	Significance between Groups
	Mean (S.D.) or %		
Age	41.9 (13.9) [Median 39]	45.6 (13.7) [Median 43.5]	$W_S = 2,815.5, z = 1.42, P = 0.16^a$
Female	88.7%	86.0%	$\chi^2(1) = 0.17, P = 0.68$
Caucasian	67.9%	60.0%	$\chi^2(1) = 0.70, P = 0.40$
Single	45.3%	56.0%	$\chi^2(1) = 1.18, P = 0.28$
Bachelor's degree or higher	71.7%	72.0%	$\chi^2(1) = 0.001, P = 0.97$
Patient Health Questionnaire-9 Score	16.0 (5.1) [Median 16]	16.8 (5.1) [Median 17]^b	$W_S = 2,655.0, z = 0.88, P = 0.38$
17-item Hamilton Depression Rating Scale Score	21.8 (3.8) [Median 22]	22.2 (4.7) [Median 22]	$W_S = 2,607.0, z = 0.05, P = 0.96$
Receiving active dose of antidepressant medication	34.0%	40.0%	$\chi^2(1) = 0.40, P = 0.53$
Alcohol Use Disorders Identification Test – total score	8.9 (5.6) [Median 7]	8.7 (4.7) [Median 7.5]	$W_S = 2,658.0, z = 0.39, P = 0.70$
Concurrent diagnosis of alcohol abuse or dependence	34.0%	30.0%	$\chi^2(1) = 0.19, P = 0.67$
Concurrent diagnosis of drug^c abuse or dependence	5.7%	10.0%	$P = 0.48^d$

^{a}: Wilcoxon rank-sum test and z statistic

^{b}: All results for this cell are based on $n = 49$ due to one missing data point.

^{c}: Drugs included cannabis, stimulants and opiates. Drug groups were combined to help increase the power for the statistical test.

^{d}: Fisher's exact test, 2-sided

Table 2

End of Treatment (Week 18) Clinical and Treatment Adherence Outcomes of Participants with Problematic Alcohol Use.

	Face-to-Face CBT	T-CBT	Significance between Groups
	Mean (S.D.) or %[a]		
Alcohol Use Disorders Identification Test – total score	4.5 (2.2) [Median 4] (n = 46)	4.3 (2.1) [Median 5] (n = 44)	$W_S = 1,971.5$, $z = 0.25$, $P = 0.80$[b]
Patient Health Questionnaire-9 Score	5.9 (5.4) [Median 5] (n = 46)	6.9 (7.2) [Median 4] (n = 45)	$W_S = 2,074.5$, $z = 0.04$, $P = 0.97$
17-item Hamilton Depression Rating Scale Score	11.8 (7.2) [Median 10] (n = 47)	12.8 (9.2) [Median 12] (n = 45)	$W_S = 2,104.5$, $z = 0.09$, $P = 0.93$
Receiving active dose of antidepressant medication	31.9% (n = 47)	36.4% (n = 44)	$\chi^2(1) = 0.20$, $P = 0.66$
Continued to meet criteria for major depressive disorder	14.9% (n = 47)	20.0% (n = 45)	$\chi^2(1) = 0.42$, $P = 0.52$
Response criteria on the Hamilton Depression Rating Scale	53.2% (n = 47)	48.9% (n = 45)	$\chi^2(1) = 0.17$, $P = 0.68$
Remission criteria on the 7-item Hamilton Depression Rating Scale	41.5% (n = 53)	44.0% (n = 50)	$\chi^2(1) = 0.07$, $P = 0.80$
Number of CBT sessions attended	15.0 (4.8) [Median 17] (n = 53)	14.7 (5.2) [Median 17] (n = 50)	$W_S = 2,610.0$, $z = 0.07$, $P = 0.95$
Failure to engage in treatment	7.5% (n = 53)	8.0% (n = 50)	$P = 1.00$[c]
Failure to complete treatment[d]	18.4% (n = 49)	19.6% (n = 46)	$\chi^2(1) = 0.02$, $P = 0.88$
Discontinuation of treatment[e]	24.5% (n = 53)	26.0% (n = 50)	$\chi^2(1) = 0.03$, $P = 0.86$
Decrease in Alcohol Use Disorders Identification Test total score from baseline to end of treatment	$T = 31.0$[f], $z = 4.85$, $P < 0.001$, (n = 46)	$T = 23.5$[f], $z = 5.20$, $P < 0.001$, (n = 44)	$W_S = 2,158.0$, $z = 1.26$, $P = 0.21$[b]

[a]: Sample sizes in some cells vary due to missing data points.

[b]: Wilcoxon rank-sum test and z statistic

[c]: Fisher's exact test, 2-sided

[d]: Attended more than 4 CBT sessions but less than 18 CBT sessions

[e]: Did not attend CBT session #18

[f]: Wilcoxon signed-rank test and z statistic

Table 3

Post-Study Depression Outcomes of Participants with Problematic Alcohol Use.

		Face-to-Face CBT	T-CBT	Significance between Groups
		Mean (S.D.) or %[a]		
At 3 months	Patient Health Questionnaire-9 Score	5.0 (5.4) [Median 3] (n = 46)	7.4 (7.0) [Median 4.5] (n = 44)	W_S = 2,202.5, z = 1.63, P = 0.104
	17-item Hamilton Depression Rating Scale Score	10.4 (6.0) [Median 10] (n = 47)	13.4 (8.3) [Median 11] (n = 44)	W_S = 2,221.5, z = 1.57, P = 0.12
	Receiving active dose of antidepressant medication	37.5% (n = 48)	38.6% (n = 44)	$\chi^2(1)$ = 0.01, P = 0.91
	Continued to meet criteria for major depressive disorder	8.3% (n = 48)	20.9% (n = 43)	$\chi^2(1)$ = 2.94, P = 0.09
	Response criteria on the Hamilton Depression Rating Scale	61.7% (n = 47)	43.2% (n = 44)	$\chi^2(1)$ = 3.13, P = 0.08
	Remission criteria on the 7-item Hamilton Depression Rating Scale	43.4% (n = 53)	34.0% (n = 50)	$\chi^2(1)$ = 0.96, P = 0.33
At 6 months	Patient Health Questionnaire-9 Score	5.7 (6.0) [Median 4] (n = 42)	7.9 (7.6) [Median 6] (n = 42)	W_S = 1,930.5, z = 1.31, P = 0.19
	17-item Hamilton Depression Rating Scale Score	10.4 (6.0) [Median 9.5] (n = 46)	13.5 (8.7) [Median 12.5] (n = 42)	W_S = 2,039.5, z = 1.43, P = 0.15
	Receiving active dose of antidepressant medication	35.6% (n = 45)	40.5% (n = 42)	$\chi^2(1)$ = 0.22, P = 0.64
	Continued to meet criteria for major depressive disorder	13.0% (n = 46)	17.1% (n = 41)	$\chi^2(1)$ = 0.28, P = 0.60
	Response criteria on the Hamilton Depression Rating Scale	54.3% (n = 46)	42.9% (n = 42)	$\chi^2(1)$ = 1.16, P = 0.28
	Remission criteria on the 7-item Hamilton Depression Rating Scale	45.3% (n = 53)	40.0% (n = 50)	$\chi^2(1)$ = 0.29, P = 0.59

[a]. Sample sizes in some cells vary due to missing data points.

[b]. Wilcoxon rank-sum test and z statistic