

# Cognitive behavioral therapy delivered by telephone reduced depression in multiple sclerosis with functional impairment

Mohr DC, Hart SL, Julian L, et al. Telephone-administered psychotherapy for depression. *Arch Gen Psychiatry*. 2005;62:1007-14.

**Clinical impact ratings:** Mental Health ★★★★★☆☆ GIM/FP/GP ★★★★★☆☆ Neurology ★★★★★☆☆

## QUESTION

In patients with multiple sclerosis (MS) who have functional impairment and depression, is cognitive behavioral therapy delivered by telephone (T-CBT) more effective than supportive emotion-focused therapy delivered by telephone (T-SEFT)?

## METHODS

**Design:** Randomized controlled trial.

**Allocation:** {Concealed}†.\*

**Blinding:** Blinded (outcome assessors).\*

**Follow-up period:** 16 weeks and 1 year.

**Setting:** San Francisco, California, United States.

**Patients:** 127 patients > 18 years of age (mean age 48 y, 77% women) who were diagnosed with MS by a neurologist, had functional impairment (score  $\geq 3$  out of 6) on  $\geq 1$  area of function on the Guy's Neurological Disability Scale, and scored  $\geq 16$  on the Beck Depression Inventory (BDI) and  $\geq 14$  on the Hamilton Depression Rating Scale (HDRS). Exclusion criteria: met criteria for dementia, were in psychotherapy, showed substance abuse or psychosis, were currently suicidal, were having a current MS exacerbation, were unable to participate in treatment or assessment, or used medications other than antidepressants that could affect mood.

**Intervention:** T-CBT ( $n = 62$ ) or T-SEFT ( $n = 65$ ). T-CBT teaches patients skills to

help them acknowledge and challenge cognitions and behaviors that contribute to depression. T-SEFT consists of listening empathetically, developing a therapeutic bond, and facilitating direct expression of present emotional experience and current needs.

**Outcomes:** Scores on the HDRS, BDI, and Positive Affect scale (from the Positive and Negative Affect Scale) and *DSM-IV* diagnosis of major depressive disorder.

**Patient follow-up:** 94% (intention-to-treat analysis).

## MAIN RESULTS

Both groups showed improvement from baseline in depression symptoms. T-CBT showed greater improvement than T-SEFT at week 16 on the HDRS ( $P = 0.02$ ) (Table) and the Positive Affect scale ( $P = 0.008$ ). T-CBT led to a greater reduction in the prevalence of major depressive disorder at 16

weeks than did T-SEFT (Table). However, both interventions had similar effects on the BDI ( $P = 0.29$ ) (Table). Treatment gains were maintained at 1-year follow-up but no longer showed differences between groups.

## CONCLUSION

In patients with multiple sclerosis who have functional impairment and received telephone-delivered psychotherapy for depression, cognitive behavioral therapy was more effective than supportive emotion-focused therapy at 16 weeks.

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\*See Glossary.

†Information provided by author.

## Telephone-administered cognitive behavioral therapy (T-CBT) vs telephone-administered supportive emotion-focused therapy (T-SEFT) for depression in multiple sclerosis†

Outcomes at 16 wk	T-CBT	T-SEFT	Mean difference (P value)	
Mean HDRS score	12.0	14.8	-2.8 (0.02)	
Mean Beck Depression Inventory score	15.0	18.5	-3.5 (0.29)	
				RRR (95% CI)      NNT (CI)
Proportion diagnosed with MDD	13%	29%	54% (53 to 78)	7 (4 to 88)

‡HDRS = Hamilton Depression Rating Scale; MDD = major depressive disorder. Other abbreviations defined in Glossary; RRR, NNT, and CI calculated from data in article.

## COMMENTARY

By comparing T-CBT with T-SEFT, the study by Mohr and colleagues aimed to control for such nonspecific factors as therapist attention and empathy. The sample comprised persons with depression who also had disabilities secondary to MS. Although selecting patients with MS might be thought to limit the generalizability of the findings, evidence shows that among persons with depression, the cause and response to treatment are generally similar for those with chronic physical illness and those who are physically healthy (1). Furthermore, as the authors themselves argued, persons who are disabled from MS are particularly well-suited for T-CBT, because they are likely to have difficulty getting to outpatient appointments.

At baseline, 70% of the sample was diagnosed with major depressive disorder using an interview schedule previously validated for telephone administration, with no differences between the treatment groups. Apart from the interventions themselves, 2 main factors were likely to reduce the prevalence of depression over time. First, 55% of the study participants were also on antidepressant medication. Second, depressive symptoms in chronic physical illness may be transient, and the study

did not include a run-in period to select patients whose depressive symptoms were likely to endure without intervention. Both factors probably contributed to the failure to find treatment differences at 24- and 48-week follow-up.

The other striking finding was the low attrition rate (6% overall), indicating that telephone therapy was considered very acceptable to participants.

Taken overall, these results suggest that T-CBT is an effective adjunctive intervention for major depression in people with MS and probably other physical illnesses. Cognitive therapy aims to give patients skills and resources that they can use to manage future depressive episodes without needing further psychiatric interventions. However, follow-up longer than 1 year will be required to show this benefit.

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## Reference

- Gill D, Hatcher S. *J Psychosom Res*. 1999;47:131-43.