

Supplemental Material

1. Measure references (DSM-IV, HSCL-20, PRIME-MD)

- a. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders (4th ed.). Washington, DC, American Psychiatric Association Publishing, 1994
- b. Lipman RS, Covi L, Shapiro AK: The Hopkins Symptoms Checklist (HSCL): Factors derived from the HSCL-90. *J Affect Disord* 1979; 1:9-24
- c. Spitzer RL, Williams JB, Kroenke K, et al: Utility of a new procedure for diagnosing mental disorders in primary care: The PRIME-MD 1000 study. *JAMA* 1994; 272 :1749-1756

2. Supplemental reference for the psychometric properties of the HSCL-20.

- a. Oxman TE, Hegel MT, Hull JG, et al: Problem-solving treatment and coping styles in primary care for minor depression. *J Consult Clin Psychol* 2008; 76:933-943

3. Sensitivity analyses for gender effects, adding study as a predictor.

The HLM analysis of gender as a moderator over time was repeated with study as a predictor.

The effect of study on HSCL-20 scores was not significant, $t=1.70$, $df=410.19$, $p=0.09$, nor was the study by gender by study interaction, $t=-1.23$, $df=1235.47$, $p=0.22$, but the gender by time interaction remained significant, $t=2.81$, $df=1770.59$, $p = 0.005$.

4. Sensitivity analyses for gender effects, using only patients who completed 4 or more sessions.

The HLM analysis of gender as a moderator over time was repeated using only those patients who had completed 4 or more sessions, which was previously defined as an adequate ‘dose’ of PST-PC (see references 9 and 14 in the main manuscript). The pattern of results was the same as with the entire intent-to-treat sample: there was a main effect for time as HSCL-20 scores decreased significantly over the study period, $t=-5.74$, $df=1546.14$, $p=0.000$. The main effect for

gender was not significant, $t=-1.32$, $df=278.84$, $p=0.19$. The interaction of gender and time was significant, $t=2.78$, $df=1545.98$, $p=0.005$.

5. Sensitivity analyses for gender effects, using only White and Latino/Hispanic patients.

The HLM analysis of gender as a moderator over time was repeated comparing only White and Latino/Hispanic patients, which resulted in the same pattern of results as those comparing White patients with all patients of color: there was a significant main effect for time, $t=-6.69$, $df=1620.35$, $p=0.000$; the main effect for gender was not significant, $t=-1.05$, $df=410.21$, $p=0.29$; and the interaction of gender and time was significant, $t=2.82$, $df=1604.98$, $p=0.005$.

6. Sensitivity analyses for race-ethnicity effects, adding study as a variable

The HLM analysis of race-ethnic group as a moderator of outcomes over time with study as a predictor could not be conducted because there were too few non-Latino patients in one study ($n=4$).

7. Sensitivity analyses for race-ethnicity, using only patients who completed 4 or more sessions

The HLM analysis of ethnic group as a moderator over time was repeated using only those patients who had completed 4 or more sessions. The main effects for time and race-ethnic group were marginally significant (time: $t=-1.83$, $df=1546.84$, $p=0.07$; ethnic group: $t=1.96$, $df=290.85$, $p=0.05$), and the interaction of race-ethnic group and time was not significant ($t=0.16$, $df=1547.00$, $p=0.87$), suggesting no differential response to PST-PC by racial-ethnic minority or majority groups.

8. Sensitivity analyses for race-ethnicity, using only White and Latino/Hispanic patients

The HLM analysis of race-ethnic group as a moderator over time was repeated comparing only White and Latino/Hispanic patients, which resulted in the same pattern of results as those comparing White patients with all patients of color insofar as the main effect for race-ethnic

group was significant, $t=2.18$, $df=443.68$, $p=0.03$; and there was no moderating effect of race-ethnic group over time, $t=-1.28$, $df=1640.91$, $p=0.20$, however, the main effect of time was not significant, $t=-0.71$, $df=1634.87$, $p=.48$.

9. Additional information on the time by race-ethnic group effect.

The race-ethnic group by time effect warrants further scrutiny because of its potential clinical importance, despite the statistically insignificant result. The observed power for the difference in the two groups was calculated by comparing the pre-treatment values with those at two important time points: post-treatment, which was sought from all patients, and follow-up, which was sought from a subset of patients. From pre- to post-treatment, racial-ethnic majority patients' HSCL-20 scores decreased 0.13 points more than did racial-ethnic minority patients' scores, with the 95% confidence interval spanning a decrease of 0.29 to an increase of 0.02 points (observed power=0.38). From pre-treatment to follow-up, racial-ethnic majority patients' HSCL-20 scores decreased 0.20 points more than did racial-ethnic minority patients' scores, with the 95% confidence interval spanning a decrease of 0.45 to an increase of 0.04 points (observed power=0.37). Using PASS 2019 (NCSS, Kaysville, UT), a mixed model power analysis for the observed difference in two means at post-treatment (up to 7 measurements per subject), found power=0.49, $\alpha=0.05$, based on the non-missing sample size of $n=259$. With power=0.80, a sample of 2652 would be required to detect the observed difference. At the week 25 follow-up (up to 8 measurements per subject), power=0.42, $\alpha=0.05$, based on the non-missing sample size of $n=149$. With power=0.80, a sample of 247 would be required to detect this difference. Taken together, there is a weak effect of differential change by race0ethnic group at post-treatment, and while this effect was somewhat more evident at follow-up, fewer patients provided follow-up data, so these data may be less representative of the sample. Despite the lack

of evidence for differential response by race-ethnic group, potential contributors to lower HSCL-20 scores among racial-ethnic majority than minority patients across time, may be clinically important and should be examined in future research, such as therapist cultural sensitivity, and patient beliefs about PST-PC efficacy and degree of alignment with patient worldview and culture.

10. Additional references related to cultural adaptations to psychotherapy, and practice guidelines for depression.

- a. American Psychiatric Association: Practice Guideline for the Treatment of Patients with Major Depressive Disorder, third edition. Arlington, VA, American Psychiatric Association Publishing, November, 2010.
https://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/mdd.pdf
- b. Chowdhary N, Jotheeswaran AT, Nadkarni A, et al: The methods and outcomes of cultural adaptations of psychological treatments for depressive disorders: A systematic review. Psychol Med 2014; 44:1131-1146
- c. Seidler ZE, Rice SM, Ogrodniczuk, et al: Engaging men in psychological treatment: A scoping review. Am J Mens Health 2018; 12: 1882-1900